

# SOUTHERN TEXTILE BULLETIN

VOLUME XV.

CHARLOTTE, N. C., THURSDAY MAY 16, 1918.

NUMBER 11.

## VICTOR MILL STARCH – The Weaver's Friend



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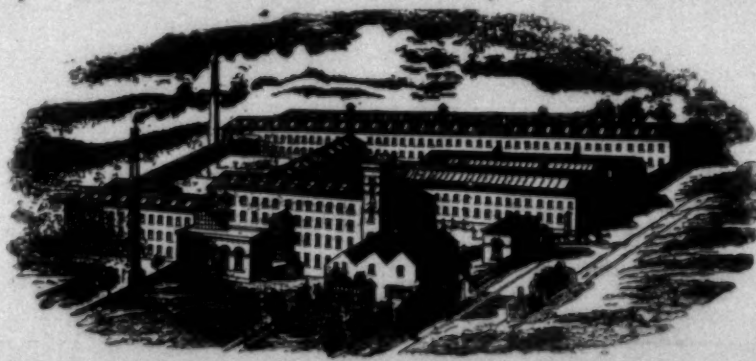
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# SOUTHERN TEXTILE BULLETIN

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## Conservation of Fuel in War Times

Walter W. Kidder, Production and Consulting Engineer, 74 Wall Street, New York City, before joint meeting of Cotton Manufacturers, New York, May 3, 1918.

Before proceeding to a discussion of methods of conserving fuel, it is proper to place before this gathering of executives the few fundamental facts which will enable them to exercise their accustomed prerogative of judging for themselves how much worth while it is to accomplish this purpose. The mere fact that time has been assigned to consideration of the subject certifies that the arrangers of the program deem the matter important, and therefore, bring it before this convention.

The few figures which are presented will suffice to make clear and emphatic the opportunity and the need for reduction of waste of fuel. They have taken from two sources, both authoritative, namely, the reports of the United States Bureau of Mines, and statistics compiled by the National City Bank of New York City.

It is expected this country will produce during this calendar year of 1918, a total of about 700,000,000 short tons of coal, of which a round hundred million will be anthracite. This total quantity is only a normal increase over the output of 1917. Almost 40 per cent of this total, or about 270,000,000 tons, will be consumed for industrial purposes, and very nearly the same amount will be required for the combined needs of railroads, for the manufacture of gas and coke, and for the operation of mines. Bunker and export coals amount to only about 6 per cent of the output, or too small a figure to materially affect conditions in general.

The first question which directly concerns us at this time is:

### How Much Coal is Wasted by the Industrial Consumers of the Country and How Much of That Waste Can Be Prevented?

Mr. V. H. Manning, Director of the Bureau of Mines, Department of the Interior, at Washington, is authority for the statement that the waste of coal in this country is one-fourth of the entire consumption. This refers to preventable waste, which is additional to that due to the inherent wastefulness of even the best designed furnaces. He estimates that the portion of heat in the coal consumed that is converted into power, is but 20 per cent in the most modern and efficient power plants, while in small plants it is as low as 10 per cent.

If we rate a plant that succeeds in utilizing 20 per cent of the heat

units in coal consumed, as operating at full efficiency according to present day standards, then the plant that converts but 10 per cent of the heat units shows an efficiency of but 50 per cent.

Mr. Manning's figures are fully sustained by a leading authority on power plant engineering, who stated recently, in an address to the American Society of Mechanical Engineers, that preventable waste of fuel in the steam power plant of a large corporation, in which he conducted a 14-day test, showed an efficiency of but 55 per cent. Preventable waste in this plant was computed to be at the rate of 40,000 tons annually, for the plant is comparatively modern and considered capable of holding a level of 70 per cent or more. Bear in mind that these figures relate only to power generation and not to its distribution nor consumption.

Reverting to Mr. Manning's standard by which, for convenience, we can term a plant that utilizes 20 per cent of heat units as having the full standard of 100 per cent rating, and the example just given where a modern plant showed a rating of but 55 per cent due to inefficient management, it is quite believable that preventable waste in power generation alone may reach the total of 25 per cent of fuel consumed.

It is doubtful whether or not, the relatively few 100 per cent efficient steam plants greatly reduce the ratio of waste justly chargeable to industrial consumers collectively. Referring to large steam power plants, which supposedly are better managed and more efficient than small ones, an engineer who has been engaged in the investigation and improvement of operation of factory power plants for sixteen years says: "I have never visited a plant of this class where a saving in coal of at least 10 to 12 per cent could not easily be made."

The extent of the burden of responsibility for preventable waste that Mr. Manning lays at the door of industrial executives is the needless consumption of 67,000,000 tons of coal in this year when, as never before, there is need to prevent it. Even though all of that immense quantity be preventable waste, it is too much to hope that it may be materially reduced, unless the full power of such an agency as the associations, which are met here in convention, is used to exert their weighty influence with an energy

that will not be denied, and arouses factory executives throughout the country to take early and effective action.

While it is probable that the estimate of 25 per cent of the waste of fuel consumed may be approximately correct, it is useless to think of the possibility of saving more than a fraction of that quantity. If, however, prompt and thorough-going measures should be taken to arouse steam users to a full realization of the profit to themselves, and to the patriotic service to the nation, it seems within reason to expect that by dint of earnest and persistent effort, at least one-third of the 25 per cent of waste by industrial consumers may be prevented. This may be conceded as conservative, for every engineer who is versed in power-plant economics knows the truth of the statement that "savings of 10 and 12 per cent can easily be made" in all but the exceptional power plants.

It should be remembered that we are considering, up to this point, only the savings relating to power generation, while other savings are equally possible in its distribution and consumption. There can be no doubt of the possibility, and the necessity is of the first magnitude. The relief of congestion upon the railroads would be appreciable, and it would affect most of all the northeastern section of the country where conditions are the worst.

The Committee on Coal Conservation of the Chamber of Commerce of the United States, have reported that: "Coal constitutes 35 per cent in weight of all freight carried by the railroads. This is three times the weight of agricultural products moved by rail. In the East, coal is 43 per cent of the aggregate tonnage.

At the time this paper is being written, there appears to be a pronounced lack of co-ordination between the administration of railroads and the fuel administration that threatens to restrict output below the predicted 700,000,000 tons. During the first half of the month of April, the reported shipments show a considerable reduction in volume; many mines are reported as having shut down, and in some cases miners are quitting districts where the shortage of cars has persisted,—all of which is progress in the wrong direction. The pressure upon transportation lines will be all the more acute later, in consequence of delays at this time, and these condi-

tions emphasize the need of all the relief that can be afforded to the railroads.

The quantity of but one-third of the coal waste attributed to industrial concerns would make up a continuously coupled train of fifty-ton cars, extending from New York to San Francisco. This is not only a quantity of coal that is worth saving, but would afford relief that is sorely needed by the railroads of the East.

Before passing to consideration of the practical steps that operators of power plants can take to effect reduction of waste, let us take up another vitally important matter bearing upon relief to both the manufacturers of the country and to the railroads, the enormous extent of which can best be expressed by the figure of a second continuous train stretched from San Francisco up the coast to Seattle, across the continent to New York, and down the Atlantic coast to the Florida line.

On authority of the Director of the United States Bureau of Mines, that fifty-four hundred mile train is loaded with what we politely terms "ash," but which the sweating firemen in thousands of boiler rooms throughout the country know by other names more definitive than polite. The statement is officially made that "the ash content in coal shipped from the mines in 1917 was 5 per cent higher than in previous years." There is no reason to expect that the ash content will be less in the coal of 1918. Quite naturally the coal operator blandly explains, as he watches his bank account swelling from the returns of the shipment of 35,000,000 tons of slate and stone and lowest grade coal, which, for the first time in his life he has been able to bill at the price of perfectly good coal, that the shortage of labor prevents the thorough picking of coal and sometimes a little slate may be missed. Unquestionably, the coal operator, in common with every other employer of labor in the country, has difficulty in maintaining a full working force.

The coal operator has the trifling advantage of the cotton manufacturer, in that he is not forced by competition to maintain past standards of quality, and quite fortunately; the Fuel Administration omitted to fix the standard of quality when determining the price. The natural consequence is the fifty-four

(Continued on Page 10.)

## Stop Motion for Loom.

Walter A. Brown, of Easley, South Carolina, has invented certain improvements in looms, of which the following is a specification.

This invention has relation to looms for weaving cloth, and the nature and objects thereof will be readily apparent to those skilled in the art to which it appertains in the light of the following explanation of the accompanying drawings illustrating what is believed to be the preferred embodiment or mechanical expression of the invention, from among other forms and arrangements within the spirit thereof or the scope of the appended claims.

However, an object of the invention is to provide in a loom of the "Northrop" type, means whereby the operation of the loom may be automatically stopped when any portion of the harness of the loom or operating mechanism therefor, becomes broken.

Another object of the invention is to provide a device in a loom having a warp thread stop motion for coaction with said stop motion to automatically stop the loom when any portion of the harness, frame, or operating mechanism therefor becomes broken or out of order.

A still further object of the invention is to provide a device of the character above set forth, of a nature permitting its ready attachment and embodiment in many types of looms, and particularly those employing a warp stop motion of the character including elements supported upon the warp threads and adapted when said threads are broken to permit the same to obstruct movement of a particular piece of mechanism whereby operation of associating mechanism may take place to shut off the application of power to the loom.

In addition to the foregoing the invention comprehends improvements in the details of construction and arrangement of parts to be hereinafter more fully described and particularly set forth in the appended claims.

In the accompanying drawings in which similar and corresponding parts are designated by the same characters of reference throughout the several views in which they appear:

Figure 1, is a transverse vertical sectional view taken through a loom of the Northrop type and illustrating the embodiment therein of the invention.

Fig. 2, is a view in side elevation of the attachment per se, and

Fig. 3, is a view of said attachment in edge elevation.

With reference to the drawings 10 indicates the end frame member of a loom of conventional type, and 11 indicates the lay beam mounted for oscillation in a direction transversely of the loom in a manner usual with looms of conventional type. Mounted upon an extension of the frame and thereabove is a longitudinally extending rock shaft 12 around which straps 13 pass, said straps being designed to support at their lower ends the upper members 14 of harness frames 15 of conventional type. The lower members

16 of said frames are connected through the medium of jack hooks 17 to bottom bars 18, which bars in turn are connected through the medium of straps 19 to the forward ends of treadles 20 which are mounted for oscillation in a vertical plane upon a shaft 21 secured upon the rear horizontal connecting member of the frame.

Extending between the end members of the frame and in a longitudinal direction is a cam shaft 22 which has fixedly secured thereto cams 23 in spaced relation for en-

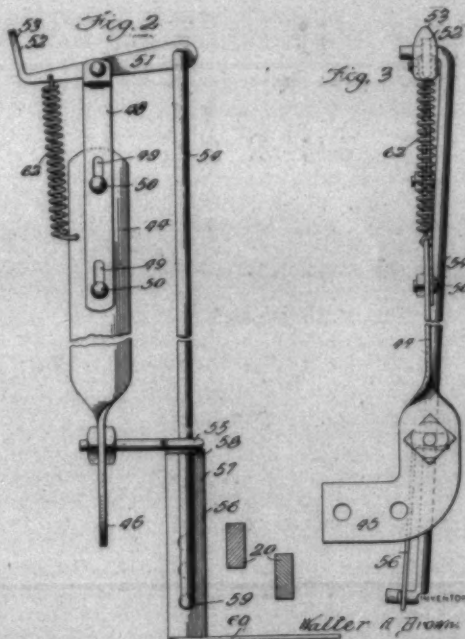
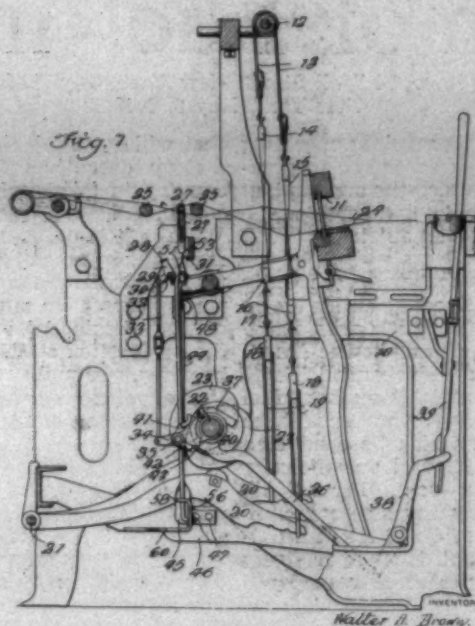
wherein 27 indicates one of a series of slotted detectors adapted to be suspended upon the warp threads between the lease rods. A feeler bar 28 is disposed longitudinally of the machine adjacent the lower end of the above mentioned detectors 27, and said bar is mounted upon a plurality of rods 29 fixedly secured to a longitudinally extending rock shaft 30 whereby said feeler may be rotated toward and away from the detectors and is adapted for engagement with a coacting bar 31 disposed longitudinally of the machine and

with an extension provided with bearings wherein said short shaft 35 is journaled. The link 36 extends forwardly and downwardly from the cam shaft and is connected at its lower end with a lever 38 in turn having engagement with the lower end of a shipper lever 39, which is adapted to move the belts from the fast to the loose pulley of the loom (not shown) when the loom is to be stopped. The cam shaft 22 carries a cam 40 for engaging a follower 41 which is fixedly secured to the above mentioned shaft 35, and said shaft also carries a finger 42 which is adapted to be placed in the path of movement of a lug 43 mounted upon an annular member which encircles and is secured to the cam shaft 22.

In operation and assuming that one of the detectors has fallen owing to the breaking of the warp thread which supports the same, the feeler bar 28 will be held against vibration and consequently the finger 42 above mentioned will be held in the path of movement of the lug 43 which rotates with the cam shaft whereby upon continued rotation of the cam shaft during operation of the loom, the link 36 is moved upwardly and longitudinally in the direction of the arrow whereupon the shipper lever will be oscillated in an obvious manner to stop the motion of the loom. Ordinarily and when the warp stop motion is not actuated, the feeler bar 28 is vibrated through the action of the cam 40 which moves the follower 41, thereby rotating the shaft 35 which in turn owing to its connection with the feeler bar vibrates said feeler bar. At such times during the normal operation of the machine as the lug 43 is brought adjacent the finger 42, the cam 40 will operate the follower 41 to move said finger out of the path of movement of said lug whereby the link 36 will not be shifted.

Thus far, the description has been that of the conventional type of loom embodying a warp stop motion, and this invention comprises a vertically extending bar 44 having its lower end bent at right angles as indicated at 45 for attachment to a transversely extending girth 46 at the lower portion of the loom frame through the medium of rivets, bolts, or the like 47. The bar 44 extends upward to a point adjacent the rock shaft 30 of the feeler bar, and is disposed in vertical alinement with the series of detectors 27. A bar 48 is secured to one side face of the bar 44 as clearly set forth in Fig. 2 wherein it will be seen that the bar 44 is provided with a plurality of elongated openings 49 through which bolts or the like 50 are adapted to pass, said bolts being secured in the upper ends of the bar 44. In this manner the bar 48 may be adjusted vertically relative to the bar 44 to vary the height of the mechanism carried by the bar 44 and to be described. The upper end of the bar 48 is bifurcated to receive a stop lever 51 pivoted at a point substantially intermediate its ends within said bifurcated portion, having one end bent upward as at 52 and twisted to dispose its flat face in a plane substantially at right angles to the plane of the lever 51 and having its

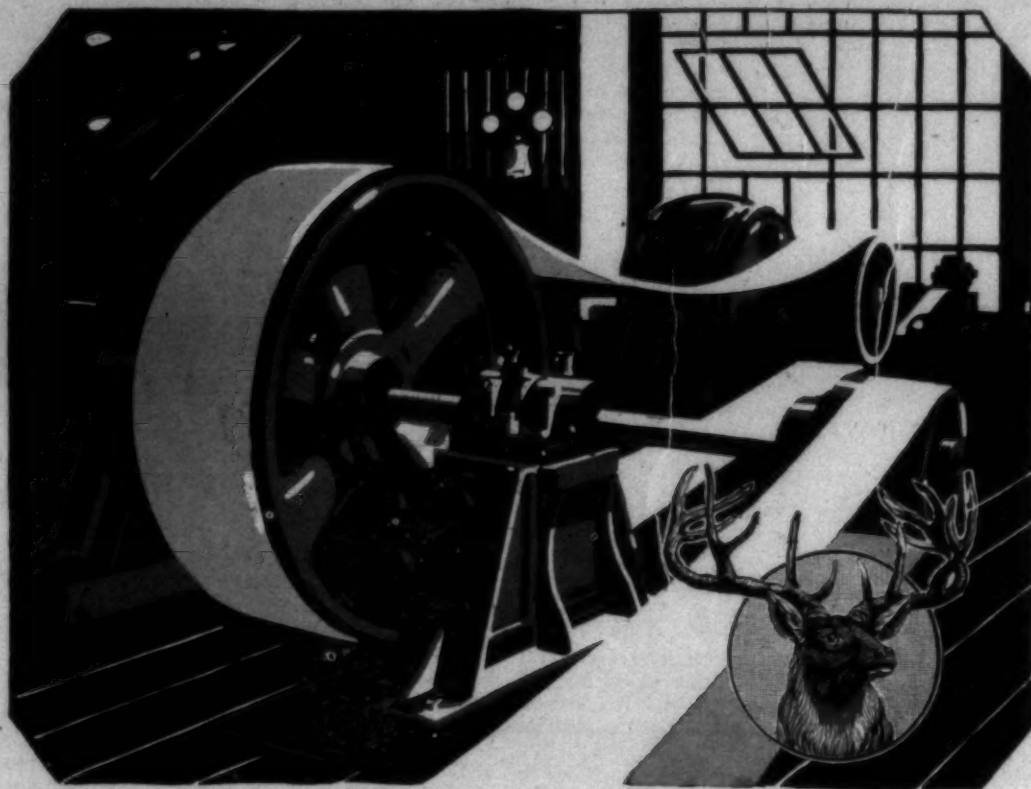
(Continued on page 11.)



gagement with rollers mounted upon the treadles 20 whereby during rotation of said cam shaft the treadles and consequently the harness frames 15 may be alternately moved up and down to change the relation of the warp threads indicated at 24. After the usual manner the warp threads are extended transversely of the machine, and through the comb of the lay beam, and rearwardly of the machine are crossed around longitudinally extending lease rods 25.

A loom of the Northrop type embodies an automatic warp stop motion, substantially in the form set forth in Fig. 1 of the drawings

in contiguous relation to the feeler bar 28 whereby when any of the detectors drop movement of the feeler bar toward the bar 31 may be prevented. In this manner any of the detectors will form an obstruction and prevent vibration of said feeler bar. A rock shaft 30 is provided with an arm 32 to which a depending link 33 is connected, the lower end of said link being in turn connected to an arm 34 which is mounted upon a short shaft 35. Said shaft is journaled in the upper end of a link 36 which has a bifurcated portion 37 adapted to partially encircle the cam shaft 22 and formed



## POWER IS VITAL

### MONARCH LEATHER BELTING PULLS ITS LOAD

"Monarch" Leather Belting is keeping the pace of the country's unusual textile demands.

In this hour power is vital. Textile mills are racing against time. Every moment is precious. Production is paramount.

Slips, stops and leaks of power are nil where "Monarch" Leather Belting is installed.

"Monarch" is everlastingly working in the big national textile drive.

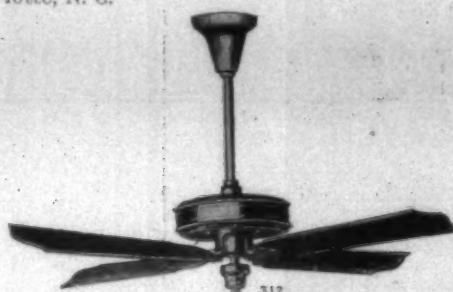
**THE BRADFORD BELTING COMPANY**  
200 WALNUT ST. CINCINNATI, O.

## DISCUSSIONS BY PRACTICAL MEN

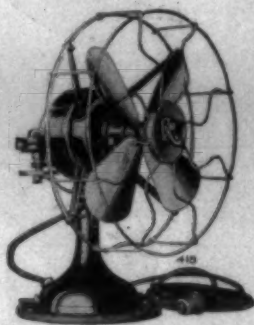
### Electric Fans.

There is nothing like an electric fan to cut down the sultry summer heat in an office and thereby increase the efficiency of the office force.

Among the best known and largest builders of electric fans are Robbins & Meyers, who are represented in the South by the Electric Supply & Equipment Company of Charlotte, N. C.



Robbins & Myers Ceiling Fan.



Robbins & Myers Desk Fan.

Either a desk or ceiling fan is a comfort to any office but should be ordered early in order to assure delivery before hot weather.

Prices on any size or type of fan can be obtained by writing the Electric Machinery Supply & Equipment Company, 220 West First Street, Charlotte, N. C.

ery and raw materials, and he added

"we feel certain that we will make good our promise to become a large factor in making this country independent in the dyestuff industry."

In leading up to these important announcements, Dr. Reese went into a history of the development of commercial chemistry and pointed out the important place the chemist occupies in the business world. He said that his company's success in solving the chemical problems presented by the sudden great demand for explosives, following the opening of the European war, gave him and his associates confidence that the world-wide dye problem could also be solved. It gave the company courage to go into the still greater program of expansion which entering the dye field demanded.

"It would have been an easy task," he said, "to manufacture a line of colors, if advantage had been taken of the intermediates which could have been purchased on the market, and considerable profits could have been secured by the manufacture of a cheap line of goods, which have found and still find ready sale on the market today. This policy, however, was not followed by us, because we believe that the only safe foundation for the color industry is in the manufacture of a comprehensive line of intermediates, starting at the bottom from the crudes, and on such a large scale as to make it economically sound."

The step from explosives to dyes is logical from a business as well as from a chemical standpoint.

It is only a matter of evolution. The explosives manufacturer starts first with all of the necessary raw materials, which are products of this country; he is not dependent on Europe. In the case of the Du Pont Company, there was available a very large and carefully selected chemical and engineering organization. Unequaled plant and laboratory facilities were already in existence and there had been established an adequate commercial organization. With these physical requirements already met little remained to be

done.

A recent announcement by the Du Pont Company telling the world of its proposed entry into the dyestuffs industry contained this very striking paragraph:

"Back of all this is the compelling force of the country's need; if as the result of the combined efforts of all, the United States can in time become self-contained, we are quite certain that we voice the sentiment of the consuming industries in predicting that the effort will not have been made in vain."

The "compelling force of the country's need" has been in evidence in every household since imports from Germany were cut off at the beginning of the war. The American consumer has suffered to an extent which has drawn sharply to the attention of even the smallest the need for the well-established home industry, which has been brought into being and is ready to meet all demands.

### Final Memorandum on India's 1917-18 Cotton Crop.

Basing its figures on reports from the entire cotton area of India, the Department of Statistics, in its final memorandum on the 1917-18 cotton crop, places the total area at 24,781,000 acres—3,036,000 acres, or nearly 14 per cent, more than the revised final estimate of last year. The total estimate yield is 4,036,000 bales of 400 pounds each, which is 10 per cent below the revised figure of last year.—Commerce Reports.

### Then There Was Another.

Once a gentleman who had married his cook was giving a dinner party, and between the courses the good lady sat with her hands spread on the tablecloth.

Suddenly the buzz of conversation ceased, and in the silence that followed a young man on the right of the hostess said, pleasantly:

"Awful pause!"

"Yes, they may be," said the old-time cook, with heightened color, "and yours would be like them if you had done half my work."—Ex.

### American-Made Indigo Solves Dye Problem.

Wilmington, Del., May 9, 1918.—Indigo, the key to the dye situation in this country, now is being produced in commercial quantities and the solution of the American dye problem—acute since the imports from Germany were cut off—has been found. Not only is America now independent of Germany but we rapidly are moving into a position to hold the dye trade of the world after the war.

These facts were brought out by Dr. Charles L. Reese, chemical director of the du Pont Company, in an address made before the cotton manufacturers of the United States at their recent convention in New York.

The dye problems have been solved, he said, and the du Ponts are at this moment turning out synthetic indigo of the best quality on such a large scale that the commercial success of the undertaking is assured. The laboratory problems were all solved long ago. The manufacturing difficulties now have been overcome and the production

of this most important factor in the dye industry is going along according to the most-up-to-date process at the company's big plant nearing completion at Deepwater Point, N. J.

Not only is indigo being made in quantity, Dr. Reese said, but the plant is turning out all of the intermediates necessary for its production.

Dr. Reese made also the definite promise that in a very short time the indigo plant will be brought to its full capacity, which will supply all of the needs of the United States and Canada.

In addition to the production of this indigo, Dr. Reese announced that his company soon will be manufacturing types of the finest basic, acid and direct colors, and a little later will put on the market the alizarine colors with their most-needed derivatives, namely, the vat colors. Sulphur colors and chrome colors will be put on the market in a comparatively short time. He said that while it is not possible at the present to give definite dates, the plants are progressing very rapidly, when considering the difficulties of securing machin-

## Ashworth Brothers, Inc.

### Tempered and Side Ground Card Clothing

Tops Reclothed

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Cotton Mill Machinery Repaired

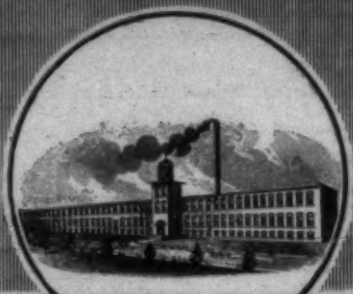
12 to 18 West Fourth St., Charlotte, N. C.

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127 Central Avenue, Atlanta, Ga.



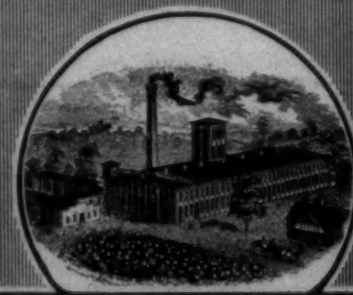
January 3, 1918.  
We have found your calculating machine of very great value in our office. It saves us fully one-third of the time on the work of some of our operators.  
The Perry Knitting Company,  
Perry, New York.



December 31, 1917.  
The Monroe Calculating Machine which we purchased from you, is entirely satisfactory in every respect, and we are well pleased with it.  
Stonewall Cotton Mill,  
Stonewall, Miss.

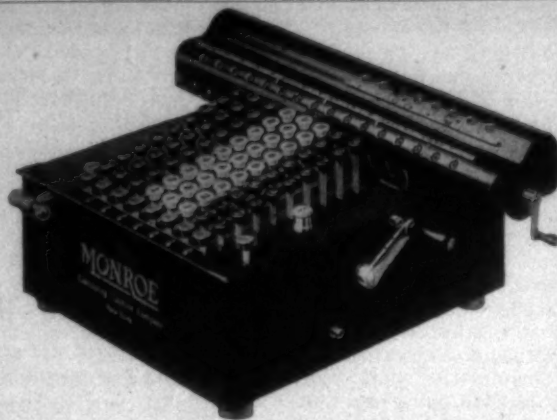


January 1, 1918.  
In our pay office we use the Monroe Machine for keeping individual wage accounts and calculating wages on time-work as well as piece-work. The use of the Monroe Machine reduces the time required for these calculations by half.  
Eagle and Phenix Mills,  
Columbus, Ga.



January 2, 1918.  
The Monroe has more than filled our expectations and we find it an indispensable part of our office equipment.  
Caraleigh Mills Company,  
Raleigh, N. C.

## Helping to Relieve the Labor Shortage



Henry Ford is authority for the statement that machinery will play a leading role in winning the War. He had in mind not only machines of destruction, but those which do a man's part behind the lines as substitutes for the man power called to the battle front.

### The **MONROE** Calculating-Adding Machine

is doing a man's part in accounting rooms everywhere. Monroe simplicity enables you to place your entire figure-load on the machine where it properly belongs. ANY-ONE in your employ can operate a Monroe after a few minutes' instruction and practice. No expert required.

The numbers are set upon the Monroe flexible adding machine keyboard, then a forward turn of the lever for addition and multiplication, a reverse turn for subtraction and division. No confusing rules to master—every operation direct and positive. Nothing easier or simpler.

The Monroe reduces office "overhead" because it enables one person to do the work of two or three. It saves money by preventing mistakes, the Monroe Visible Check placing a ban on human inaccuracies. It saves worry because it reduces all figure-work to an easy and accurate mechanical process.

You need the Monroe where you figure costs, where you figure payrolls, where you figure discounts, where you check up inventories, where you figure invoices. In the office and in every department, a Monroe will prove its value to you.

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Calculating  
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Please give us (check  
the item desired):

O Further information  
concerning the Monroe  
Calculating Machine and  
how it will save time:

(a) Figuring Cloth Construction  
(b) Production costs

(c) Percentages  
O A demonstration in our own office

Firm Name.....

Individual's Name.....

Address .....

STB-5-16-18

**National Aniline & Chemical Co., Inc.**

We beg to advise our friends and customers that on the first day of May the main office of this company was established at the National Building, 21 Burling Slip, New York.

Accompanying this note we give a roster of our sales organization thus consolidated which will indicate how thoroughly equipped we are with the talent most needed to serve the trades which we supply.

At the same time the business heretofore done by the Century Colors Corporation with the selling staff of that company was consolidated with the business and staff of this company, which owns the entire share stock of the above mentioned corporation.

Placing ourselves always at the command of those who need our services, we remain

Respectfully yours,

National Aniline & Chemical Co., Inc.  
Sales Staff.

Colors—S. R. David, general sales manager, New York; C. H. Stone, assistant to director of sales, New York.

New York, 21 Burling Slip—W. A. Reynolds, manager; Felix L. Bume, assistant manager; A. L. Mullaly, Curt Zechendorf, E. J. Zillesen, Harry Carpenter, R. W. Lesser, F. Er-lenborn, Carl A. Puller, H. C. Buffum, E. Terosse.

Philadelphia, 653 North Broad street (to be occupied about June 15)—Jesse W. Starr, 3rd, advising manager; Samuel W. Wood, manager; J. W. Smyth, assistant manager; G. W. Loudenslager, F. J. Allen, A. E. Wood, Henry S. McBride, George Gilbert, L. W. Nickerson, J. W. Sunderland, P. Tracy, M. C. Block, C. S. Fraser, Wm. Scholler.

Charlotte, 236 West First street—John L. Dabbs, manager; W. H. Willard, assistant manager; L. E. Green, B. R. Dabbs, A. L. Randolph, Julian T. Chase, C. R. Mayer, A. P. Daggett.

Kansas City, 403 Grand avenue—Chester Newman, manager; E. S. Bretherton, J. W. Horner, A. R. Stubbs.

Cincinnati, 232 East Pearl street—B. C. Blowney, manager; Nathan Jung, John Nerl, C. E. Geer, C. H. Yarbrough.

Boston, 113 High street—A. L. Norton, manager; J. R. Emmett, assistant manager; W. W. Rowse, assistant manager; G. F. Bampton, R. A. Bowen, W. E. Devine, F. N. Vincent, Charles Hansis, H. E. Stuart, P. S. Crowell, F. Sjoeren, C. C. Knights, Richard Bayer.

Chicago, 357 West Erie street—Jas. W. Peck, manager; E. B. Rathbone, James Hyde, O. L. Obermaier, Fred Trowbridge, F. J. Cramer, M. J. Schu, J. D. Mack, E. E. Parker, C. R. JJones, R. O. Brenner, J. H. Neumann, F. E. Beecher, John Buslee, J. E. Wolfe.

Milwaukee, 275 Oregon street—E. O. Ellsworth, manager; Edward Morgan, Arden L. Culver, Jacob Ternes, Frank A. Leavens.

Minneapolis, 119 Second Street, North—L. C. Gens, manager; Arthur Meyer, Henry J. Meyerand.

Hartford, 209 State street—H. E. Bidwell, resident manager; G. M. Lawton.

Technical Department—B. A. Ludwig, manager, New York; Dr. Louis J. Matos, W. Ostern, W. R. Moorhouse, H. C. Merrill, Richard Doss, G. A. Schroeder.

Intermediates—A. H. Jacoby, manager, New York; G. A. Beling, W. G. Gennerich.

Essential Oils—C. H. Alker, manager, New York; F. C. L. Remeschatis, George Contellier, F. D. Hoyt, Jr., E. M. Jewell.

Drugs and Chemicals—W. E. Rowley, manager; S. M. Money penny, assistant manager, New York; D. P. Daugherty, W. W. Kientzel.

Canadian Anilines & Chemicals, Ltd. Toronto, 14 Front Street, East—H. E. Witmer, manager.

Montreal, 8 Place Youville—Friederick Hopewell, manager; William Patterson.

Export Department—W. Edwards, manager, New York.

**Siamese Trade in Cotton Yarns.**

Owing to the cheapness of foreign cotton goods, the local weaving industry in Siam has made no progress for several years. However, the advance in price of foreign cotton manufactures has lately caused considerable activity in the use of the native loom, and in consequence there has been an increased call for cotton yarns the spinning of which is as yet done by hand and not in sufficient quantities to meet the domestic demand.

The quantities and declared values of the cotton-yarn imports through the port of Bangkok during the last four financial years, ended March 31, 1917, were as follows: 2,053,075 kilos (kilo=2.2 lbs.), value \$876,643, for 1913-14; 1,795,904 kilos, value \$744,937, for 1914-15; 1,708,236 kilos, value \$555,365, for 1915-16; and 1,609,376 kilos, value \$630,740, for 1916-17.

There have been no direct imports of cotton yarn from the United States since 1913-14, when the amount credited was \$40 worth. The countries sharing in this trade during the past three fiscal years is as follows: Hongkong, India, Japan, Netherlands, Singapore, Switzerland, United Kingdom.—Commerce Reports.

**Revised.**

Samson snored peacefully while Delilah snipped at his locks.

"Do you want it cut round or square on the back?" she asked.

No answer.

"Would you like a seafoam or shampoo?"

No reply.

"Hair is getting a trifle thin on top.

Would you like a little tonic?"

Silence.

"Have your whiskers trimmed?"

More silence.

"Next."

Whereupon Samson climbed out of the chair, gazed into a mirror, then rushed into the street and pulled down a temple.—Indianapolis Star.

"Thrive by Thrift, Buy War Saving Stamps."



## HERCULES

### SEAMLESS ROVING CANS

Write for Catalogue No. 21

Roving Cans, Barrels and Boxes.  
Cars and Trucks.

We can ship up to six car loads of 12 in. x 36 in. Cans upon receipt of order.

The largest line of Mill Receptacles.

SOUTHERN BRANCH

FIBRE SPECIALTY MFG. CO.,  
308 Masonic Temple, GREENVILLE, S. C.

Home Office and Factory, Kennett Square, Pa.

## Firth Vacuum Specialties

FOR TEXTILE MILLS

Floor Sweeping, Card Stripping and Cleaning, General Machinery Cleaning

BY VACUUM

WRITE FOR INFORMATION AND PRICES

WILLIAM FIRTH

200 Devonshire Street

BOSTON, MASS.

## MACHINERY SPECIALTIES

LINKING WARPERS

BALLING ATTACHMENTS

WARP SUPPLIES

WARP DYEING MACHINES

BALLING WARPERS

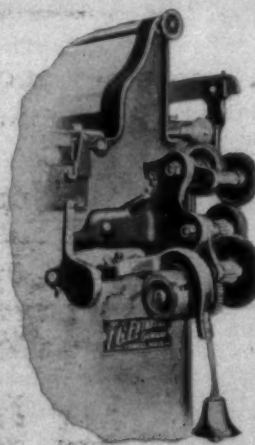
BEAMING WARPERS

BEAMERS

Cocker Machine and Foundry Company

MACHINERY DEPARTMENT

GASTONIA, N. C.



ENTWISTLE LEESE CLOCK

LEESES FROM 100 TO 1,600 YARDS

WITHOUT SET-BACKS OR MISTAKES

Each of the 10 grooves of the scroll represents a leese. The arrangement of the gearing is simple, the cut and leese gears are interchangeable.

Measuring Roll has Ball-Bearings, thus eliminating strain on yarn and assuring accuracy.

An Indicating Clock can be used with Leese Clock if desired and acts as a check on same, besides showing operator when end of leese is near as well as the total yardage.

Our catalogue, which will be furnished on request, gives a full description of Leese and Indicating Clocks.

SEND FOR OUR CATALOGUE ON

BALL WARPERS

BEAM WARPERS

BEAMING MACHINES

BALLING MACHINES

DOUBLING MACHINES

EXPANSION COMBS

CREELS

CARD GRINDERS

## T.C. ENTWISTLE COMPANY

Established 1886—Incorporated 1901

F. B. KENNEY, PRESIDENT,

LOWELL, MASS.

SOUTHERN REPRESENTATIVE, J. H. MAYES, CHARLOTTE, N. C.

**Coal Loss Through Avoidable Belt Slip.**

Never before have we understood the strategic and money value of coal as thoroughly as we do now. Never before has it been so necessary for us to save, even though considerable money must be spent in order to effect the saving.

One of the very simplest losses to overcome, at small expense, is belt slips. Since belts are used to so great an extent it will pay to look into the matter with more thoroughness than has been given it in the past. To show the extent of the loss through slipping of the main belt alone a chart is shown herewith, upon which this is easily ascertained. By glancing up and down column "D" of this chart it is evident that the "Cost of Avoidable Belt Slip per Year in Dollars" may vary all the way from the smallest sums into the thousands of dollars.

When the power is first generated by a steam engine and is transmitted to a generator or to the main shaft through a main belt it is evident that the "entire coal pile" passes through that in the form of energy. If the belt slips, a certain portion of the coal pile does not "get through" but is lost in the form of waste heat. A main belt is merely a "link" connecting the engine with the generator or with the machines themselves. In fact, every belt that transmits power is a connecting link and the efficiency of that link depends largely upon the freedom from slippage and the avoidance of strain on the shafts.

We have for the first link the coal on the grates which only perfect combustion can turn into maximum heat; next the boiler shell and tubes—which must be clean to bring the heat link to the steam link; next the steam line from boiler to engine or turbine—large enough and well insulated; then the engine or turbine link which joins heat energy and mechanical energy. Only careful design, proper valve setting and much care minimize losses here. Then, where power is distributed solely through belts and pulleys, the belts, pulleys, and shafts or electrical cables to the final motors and belts are the connecting links up to the very machines themselves.

If the efficiency of every link is maintained at its highest point the power end of the plant is beyond criticism. The overall efficiency will then be very high. But if the efficiency of every link is low or indifferent the overall efficiency of the power end will be distressingly low.

For these various reasons, therefore, it is plain that power transmission through belting is a "detail" on which we should "plug" until all avoidable slip is eliminated. It is especially important, as stated before, where all the power passes through a single main drive belt. Each per cent of slip in such a belt represents a loss of one per cent of

the coal pile.

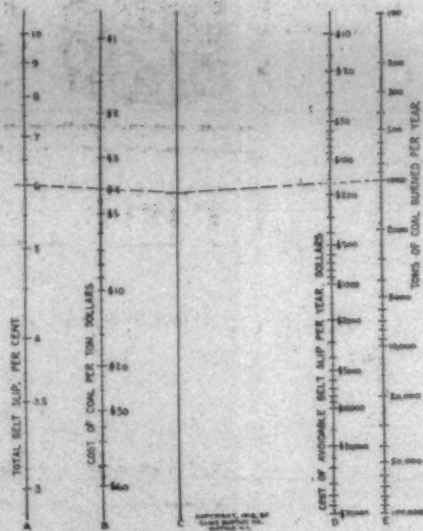
**How to Use the Chart.**

Roughly, two per cent of the potential power in the driving pulley of the engine is represented by "belt creep." Its loss is unavoidable because of the elasticity of the belt. This has been recognized and provided for in the chart, so the reader can go ahead and connect known values, while the intersection with column "D" gives the avoidable money loss.

Simply zig-zag across the chart twice with a straight-edge, as shown by the dotted lines and the money loss is immediately found. Thus if the total belt slip is six per cent (column A) and the cost of coal per ton is \$4.00 (column B), run a straight line through those two points and locate the intersection with column "C." Then from that point of intersection run over to the tons of coal burned per year (which in this instance has been stated as 1,000 tons) and the cost of avoidable belt slip per year is shown by column "D" as being \$160.00.

To give a clear idea as to the meaning of "Total Belt Slip Per Cent" let us take an example. You find by means of a revolution counter that a given driven pulley is rotating only 940 times per minute. You figure that without help it should rotate 1,000 times per minute. Sixty revolutions per minute, therefore, are absolutely lost. Dividing this sixty by the r. p. m. that pulley should make you get 0.060 or six per cent which is the "Total Belt Slip." After having made this de-

(Continued on Page 21.)



By means of this chart the total coal loss due to belt slip can be easily ascertained.

## You Want More Light in Your Mill—

The efficiency and production of your mill depend largely upon good light. You can have more and better light when using



### For Interior Walls and Ceilings

It is made by our own perfected process of especially prepared white pigments and long oil, therefore, it will not turn yellow like ordinary paints which contain lead and varnish. It is an economical paint because it is Washable, Durable, Germ and Moisture Proof. Saves the expense of frequent repainting, does not peel or crack, and withstands the vibration of heavy machinery.

## Peaslee-Gaulbert Company

Established 1867

Incorporated

Louisville, Ky.

**We Supervise  
the Paint Job  
at our expense**

### Conservation of Fuel in War Time.

(Continued from page 3.)

hundred mile train that blocks traffic and terminals, and consumes the energies of railroads in hauling worthless ash, when those energies are imperatively needed to help more effectively to win the war.

Nor is this all, nor even the worst of the consequences of that simple omission to fix the standard of quality. It was conclusively established by tests conducted by the United States Government representatives at the St. Louis Exposition, that for each 1 per cent increase in ash content, there is a decrease of 1½ per cent in heat given out as the coal is consumed. It is clear, therefore, that to arrive at the total burden put upon the railroads and the consumers of the country by poor quality of coal, 7½ per cent more must be added to the 5 per cent increase of ash content. It is a fact then, that the 700,000,000 tons of coal which will be shipped this year is only equal in calorific value to 613,000,000 tons of the quality that was mined the year before the war. The burden to the railroads is that of hauling a train thirteen thousand miles long, a length that would stretch nearly four times across the continent, or entirely around the outer border of the country and with surplus enough to tie the ends in liberal bow knots hundreds of miles long.

The added burden to the manufacturers of the country, if computed at the price of \$5 per ton, which is surely not too high a figure, will amount to \$437,500,000.

Here then, are two great objectives, worthy of the whole-hearted efforts of the important interests that are represented in this national gathering.

First, to set an example to the manufacturers of the country in the intelligent prevention of the waste of fuel, and to arouse, by measures commensurate with the importance of the end sought, the concurrent efforts of all other associations and individual manufacturers of the country to the same end.

Second, to seek to have established, and enforced, standards of quality not lower than those which prevailed before the war.

If, for the year 1918, the fuel bill for the nation must be \$3,500,000,000, or some other fixed sum, it is far better to divide it by 613,000,000 and pay a higher price per ton, for the price per unit of heat will be the same in neither case. With clean coal there will be relief to the railroads; the shipment of other freight will be facilitated, and the labor problem in boiler rooms will be substantially lightened. The two latter benefits accruing directly to the advantage of every coal consumer.

Poor fuel makes hard work for the fireman, and that in turn adds to the difficulties of holding men on the job. To increase the ash content to the extent stated, adds the equivalent of an extra day's labor to the fireman's work of the week, and it would be far pleasanter for him to shovel good coal for seven days than poor coal for six. Seven tons of poor coal most certainly cannot be stored or brought into boiler room with as little labor cost as six. With poor coal, more space is required

to store a given number of heat units, and the amount of ashes is proportionately greater, with inevitably greater cost for removal.

Conditions of competition between coal producers are not likely to result in improvement in quality for they can too easily dispose of all they can ship of inferior cleanliness. This condition is likely to continue unchecked until the Fuel Administrator intervenes, in behalf of the country, and enforces standards of quality as well as of price.

No such action has yet been taken nor seems likely to be, even though the benefit to the entire country be so great and the relief to the over-taxed capacity of the railroads so direct and undeniable. The matter is therefore presented to this convention; for official cognizance that leads to action may result from the earnest representations of these leading Associations of business men, whereas the voice of an individual would not be heard.

Let us now consider what may be done in every power plant for the prevention of waste. Unless policies are first clearly stated, it is unlikely that proper steps will be taken to insure the most desired results. Effective measures for the conservation of fuel must begin at the desk of the highest official having jurisdiction. Fuel conservation is not a mere boiler-room problem; it cannot be left to the firemen, nor even to the chief engineer. Very few operating engineers have developed the qualities of mind and experience that enable them to accomplish maximum results in the field of practical economics. Their training is in the direction of safe operation and maintenance rather than in economics along lines to which they have not been accustomed, and until they transcend their accustomed methods, they will only attain results similar to those of the past.

Most men of this type are frankly skeptical that anyone, especially an outsider who is unfamiliar with the plant, can secure operative results more economical than they themselves have been doing. To them it seems indispensable to become wholly familiar with the plant, in a most intimate degree, before a knowledge of betterment in practice can assert itself. Being unaccustomed by habit to analytical methods and the establishment of standards, they do not realize how an accurate diagnosis of conditions can take the place of long-time acquaintance with them.

Being for the most part, so-called "practical" men, they entertain, to some degree, distrust for the knowledge of those not in their own class, on the ground that they may be visionary theorists. Some entertain resentment and manifest opposition, covert or open, until won over by the ultimate discovery that practical help has been rendered to them.

Attention is called to this attitude on the part of operating engineers, and to their lack of knowledge of a different method of managing their plants, for if the problem of fuel conservation is placed in their hands alone, it is likely that not more than a small degree of betterment will result. Habit is too

(Continued on Page 18.)

## Shut out Night Prowlers



## Anchor Post Fences

THE underworld does its dealest work in the dark of night. Be prepared with a fence that will shut out night prowlers from your property.

### Anchor Post Chain Link Woven Steel Fences

do not require the protecting light of day to make them effective. Under cover of darkness they cannot be scaled, broken through or rooted up.

Close mesh fabric and barbed wire topping make scaling impossible.

Heavy construction makes the fence impregnable.

Hot-dip galvanizing prevents weakening action of rust.

Patented drive anchors hold the posts firmly in the earth and keep the fence in alignment.

The leaders in practically every field of industry are users and endorsers of Anchor Post Factory Fences. They know from years of experience that they afford maximum protection at the lowest cost per annum.

We are prepared to furnish and erect fences promptly anywhere in the United States. Have you our Catalog?

## ANCHOR POST IRON WORKS

Atlanta Office: Empire Building

General Offices—167 Broadway, New York

Philadelphia

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Cleveland

Hartford  
2167C.

**Stop Motion for Looms.**

(Continued from Page 4.)

upper end sharpened as at 53, thereby constituting a finger. The opposite end of the stop lever 51 is connected to a vertically extending link 54 which extends downwardly and is guided in an eye-bolt 55 secured to the lower end of the bar 44. An abutment member 56 is provided in the nature of a strip of sheet metal or the like having a portion 57 disposed parallel to and in contact with the lower end of the link 54 with the upper end of said portion 57 bent at right angles as indicated at 58 and provided with an opening to receive said link 54, the lower end of said member 57 having a series of perforations 59 through which the bent lower ends of the links 54 may extend, in this manner by disposing the bent terminal of the link 54 in any one of the said openings 59, the abutment member is adjusted longitudinally of the link for a purpose which will be presently obvious. The abutment member is formed at the lower end of the member 57 by bending the metal at right angles to form a horizontal portion 60, extending transversely of the loom, the end of said portion 60 being subsequently bent to extend longitudinally of the loom, and in a position to be disposed beneath the treadles 20 and the finger of the stop lever 51 disposed adjacent the feeler bar and its coating bar 31 but normally out of the path of movement of said feeler bar.

In operation, should an accident occur to any portion of the harness of the loom, for instance should one of the jacks 17 break the bottom bar 18 thereof will become disconnected whereupon one or both of the treadles 20 will be unsupported whereupon said treadle or treadles will fall until they become engaged upon the portion 61 of the abutment member 56. Owing to such engagement the abutment member will be moved downward, thereby drawing upon the link 54 which in turn rocks

the lever 51 about its fulcrum point to dispose the finger thereof in the path of movement of the feeler bar 28, thereby preventing vibration or movement thereof in engagement with the coating bar 31. In view of the foregoing description of the warp stop motion, such interposition of the finger in the path of movement of the feeler bar 28 will have the same effect upon the warp stop motion as if one of the detectors 27 had dropped. Therefore, the further operation of the loom will be immediately stopped.

Thus it will be seen that a simple and novel device is provided which will automatically stop further operation of looms when an accident occurs to any part of its harness, heddles, or treadles in a rapid and positive manner and furthermore while the device in connection with a warp stop motion of the character used on the Northrop and other looms, have been illustrated, it will be obvious that the device may be used in connection with other forms of warp stop motion.

**As Indian Sees It.**

An Indian soldier of Oklahoma home on a visit is thusly quoted by a Western paper:

"Well, John, I see you have become a soldier," said a white man who knew him.

"Yes, me soldier," replied the Indian.

"How do you like being a soldier, John?"

"No like-um."

"What's the matter?"

"Too much salute—not enough shoot."

"Of course you know what you are fighting for, John?"

"Yes, me know," answered the Indian.

"Well, what are you fighting for, John?"

"Make whole dam world democratic party," answered the Indian. —Ex.

**GARLAND****RAWHIDE LOOM PICKERS**

Are made from buffalo hides of the best quality it is possible to procure. We have the first selection from the stock of one of the largest and best curers in the world and are confident that the hide quality of our pickers can not be surpassed.

**GARLAND MFG. CO. SACO, MAINE****VOGEL**

(PATENTED)

**Frost Proof Closets**

Quarter of a Million giving satisfaction. Save Water; Require No Pit; Simple in the extreme. The most durable water closet made. In service winter and summer.

Enameled roll flushing rim bowls.

Heavy brass valves.

Strong hard wood seat.

Heavy riveted tank.

Malleable seat castings will not break.

Sold by Jobbers Everywhere.

**Joseph A. Vogel Co.**

WILMINGTON, DELAWARE

**ORTHAMINES****DIRECT COLORS**

Orthamine Blue 3B  
Orthamine Brown G and 3G  
Orthamine Orange 2R  
Orthamine Red, B, Y and 6B  
Orthamine Bordeaux  
Orthamine Rubine  
Orthamine Yellow R and G  
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Inquiries requested on all  
Dyestuffs, Chemicals and Oils

**Marden, Orth & Hastings Corporation**

(Established 1837)

61 Broadway, NEW YORK CITY

BOSTON, 225 Purchase Street  
PHILADELPHIA, Widener Bldg.  
CLEVELAND, Illuminating Bldg.

130 N. Wells Street, CHICAGO  
316 Clay Street, SAN FRANCISCO  
Hodge Building, SEATTLE

**Nottingham Lace and Hosiery Trade.**

There has been considerable speculation among the lace and hosiery manufacturers of Nottingham as to the effect on the trade of the recent Government order requiring all able-bodied men under the age of 50 to report themselves for military service. With regard to the hosiery trade, the effect will not be very serious. Of about 900 male operatives, less than 50 will have to be released. The bulk of the output of the hosiery manufacturers is for Government purposes, and very little is made for ordinary commercial consumption.

There has been a considerable improvement in the condition of the lace trade with reference to exports to the United States during the past few weeks. French Valenciennes and torchons are principally in demand, with filet styles remaining in favor. Certain ranges of fancy laces have also been ordered in considerable quantities. Business with the South American market continues satisfactory and the home trade remains normal. Inquiries and orders have also been received for lace cur-

tains for future delivery, and there is a decidedly better feeling in regard to plain nets.

Despite the difficulties with which they are confronted, hosiery manufacturers are extremely busy. The idea has been prevalent until recently that the Government contracts would be discontinued, but the rumor proved groundless. The export trade in hosiery with South America continues very satisfactory. One firm here has large contracts for the Belgian, French, English, and American armies in addition to numerous orders on hand for the ordinary civilian trade. Everyone seems to be confident as to the future, and there is no hesitation on the part of buyers. The demand for fancy hose and half-hose is as great as ever, manufacturers being taxed to their utmost capacity in supplying the trade. The scheme for producing war-time hosiery is being proceeded with steadily. Manufacturers are making the necessary samples to submit for the inspection of the authorities.

There is a good trade for women's sports coats, and general activity is manifested in nearly all branches of the industry.—Commerce Reports.

**VARNISH FIGHTS OIL**

WHILE the spinning frames run, oil works from the stands and cap bars into the ends of the leather rolls. Oil hardens and cracks the leather and the roll have to be recovered. You know what roll covering costs today. **DUREX TOP ROLL VARNISH** fights the oil by making the leather oil proof and also increasing its spinning qualities.

**TOP ROLL VARNISH COMPANY**

Box 31

CROMPTON, R. I.

**Anti-Ballooning and Furtardo Thread Guides**

These thread guides prevent excessive ballooning and decrease breakage of ends on spinning frame. They decrease the work of spinners and enable each spinner to run more sides.

**J. P. O'CONNELL**

Crompton, - - - Rhode Island

**United Chemical Products Corporation**

York and Colgate Streets, Jersey City, N. J.

Aniline Colors  
Intermediates**SUMAC** Chromonal Fast Khaki  
Chromonal Green

Lactic Acid—Tartar Emetic—Gum Arabic—Talc

**SOLUBLE OILS, TEXTILE SOAPS  
and FINISHING PRODUCTS****SACO-LOWELL SHOPS  
TEXTILE SERVICE**

FOR the convenience of our customers, we maintain in connection with our Charlotte office, a completely equipped shop, for the proper reclothing of Card Flats and Card Lickerins. Skilled experts are in charge and we invite you to avail yourselves of this service. A stock of card clothing constantly on hand enables us to supply all requirements promptly.

We are especially anxious that all our cards either Newton or Lowell pattern give satisfactory service and upon request will send expert to inspect cards and make such recommendations as may be necessary to put them in the very best possible shape.

**ROGERS W. DAVIS, Southern Agent****CHARLOTTE, N. C.****BETTER PRODUCTION  
AND BETTER CLOTH****MONAGHAN MILLS**  
Monaghan Plant

Greenville, S. C., July 8, 1916.

Steel Heddle Mfg. Co.  
Philadelphia, Pa.

Gentlemen:—

During my connection as Superintendent, formerly of the Greer Plant and now of the Monaghan Plant, I have used your "DUPLEX" FLAT STEEL HEDDLES on a large variety of fabrics ranging from two shades on 80x80 up to several harness on fancy weaves, and your heddles gave us better satisfaction than any other loom harness we could get.

NO THREAD EVER CUTS THROUGH YOUR HARNESS-EYE, which consequently means BETTER CLOTH AND BETTER PRODUCTION.

Yours very truly,

J. N. BADGER, Supt.

Because it means to the mills "BETTER PRODUCTION AND BETTER CLOTH", a larger variety of fabrics in cotton, silk, wool, jute and linen are woven with our FLAT STEEL HEDDLES than with any other type of Loom harness made.

We also make **DROP WIRES** and **HARNESS FRAMES****STEEL HEDDLE MFG. CO.**

2100 W. Allegheny Ave., PHILADELPHIA, Pa.

Southern Agent, **HAMPTON SMITH**, Greenville, S. C.

No Thread Ever Cuts Through the Harness Eye

**Cotton Spinning Industry of Japan.**

The extraordinarily favorable business conditions in Japan, due principally to the continued withdrawal of European nations from the competition for the markets of Asia and Australia, and the increasing popularity in China of Japanese products made the year 1917 an extremely profitable one for the spinning industry and have firmly fixed it as the leading manufacturing industry of Japan.

On June 30, 1917, the total authorized capital of 39 companies engaged in this industry amounted to \$76,135,687, an increase of \$7,696,840 over the preceding year; their paid-up capital amounted to \$53,904,860, an increase of \$4,259,649, and their reserve funds to \$28,394,192, an increase of \$3,936,122. The net earnings for the first six months of the 32 companies whose earnings were published totaled \$15,681,466, and their declared dividends averaged 33.4 per cent on their combined paid-up capital.

The difficulty in obtaining spindles from Great Britain still stands as an obstacle to the development of the industry. The first shipment of spinning machinery from the United States, arrived during the latter part of 1917 and was set up by an engineer and mechanics dispatched to this country by the manufacturers. It is gratifying to learn that the machinery is giving excellent service.

During the first half of the calendar year 1917, 966,896 bales (1 bale=400 pounds) of yarn were produced, this being about 16,000 bales less than the production during the corresponding period of 1916. Of this amount, 261,500 bales were exported.

Chosen (Korea) was only country to increase its exports of raw cotton to Japan in 1917, having sent 21,848 bales more than in 1916. As the increase since 1915 is equal to about 250 per cent, the following information may be of interest to the American cotton trade:

American cotton seeds were first introduced into Chosen in 1907 by the Japanese consul at Mokpo. His experiment was on the point of being successful, but before the plants had reached their full growth they were killed by the frost, which comes in Chosen about a month earlier than in the United States. Profiting by this experience, the consul looked for an early-maturing plant growing under climatic conditions approximating those of Chosen, and the following year he sowed "Kings Improved" seeds. Every care was taken to limit the length of the stems to 3 feet and the number of pods per plant to three. The results exceeded every expectation. The cotton resembled the American cotton very closely, and the yield was much greater than that of the old Korean variety. The percentage of water is about the same as in American and Indian cotton. Its one point of superiority over American cotton is the low proportion of foreign matter, due to the extreme care with which the pods are tended and picked, which the smallness of the plantations and the cheapness of human labor make

possible. The price of "continental" cotton, which name has been given this new variety, is about 5 per cent lower than the average quotations for American "middling" on the Osaka cotton exchange, but the quality is said to be equal to that of "good middling."

One peculiarity of "continental" cotton is its tendency to run down, caused, in all probability, by unfavorable climatic conditions and the impoverished state of the soil. The second year's growth shows a marked deterioration, and by the fourth year the cotton differs very little from the old Korean cotton. Spinners in this country find a lack of uniformity in the length of the fiber, and this irregularity and the large proportion of cotton stained by the tannic acid of the plant form the more serious defects.—Commerce Reports.

**Output of India's Cotton Mills.**

The output of cotton spinning and weaving mills in British India and the Native States for the nine months ending December 31, 1917, according to figures compiled by the Indian Department of Statistics from accounts rendered by mill owners, shows a decline of 2.3 per cent in the amount of yarn spun and an increase of 0.45 per cent in the quantity of woven goods manufactured, as compared with the output in the corresponding period of 1916.

Woven goods produced in Indian mills in the nine months, April to December, 1917, were valued at approximately 200,440,000 rupees (\$65,029,400), compared with 86,637,000 rupees (\$28,107,900) in the like period of 1916. The excise duty of 3½ per cent ad valorem realized on woven goods during the nine months under review amounted to 4,978,372 rupees (\$1,615,100), against 3,032,000 rupees (\$983,700) in the corresponding period of 1916.

The production of Indian weaving mills consists chiefly of gray, bleached, and colored piece goods.

Figured on a conventional basis, the output represents 887,669,159 yards of gray, bleached, and colored piece goods in 1913, 839,742,157 yards in 1914, 1,071,341,600 yards in 1915, 1,236,316,295 yards in 1916, and 1,260,702,365 yards in 1917; and included also 731,651 dozen hosiery and gray and colored goods other than piece goods in 1913, 521,776 dozen in 1914, 650,280 dozen in 1915, 711,800 dozen in 1916, and 722,972 dozen in 1917.

**Could Not Miss It.**

The average foreigner's difficulty in comprehending the huge area of the United States is well illustrated by a story about an Englishman and his valet who had been traveling due west from Boston for five days. The traveler found his servant gazing thoughtfully out of the window. He said to him:

"William, what are you thinking of?"

"I was just thinking, sir, about the discovery of Hamerica," replied the valet. "Columbus didn't do such a wonderful thing, hafter hall, when he found this country, did 'e, now, sir? Hafter hall's said and done, 'ow could 'e 'elp it?'—Ex.

**Boiling Out, Dyeing, Fulling and Washing in One Continuous Operation**

COMBINING these operations in our Hustler Continuous Process Machine, saves time, labor and materials, and consequently reduces cost.

Our multiple compartment Machine offers textile manufacturers an opportunity of producing quality goods at a greatly reduced cost. Let us figure on your proposition.

Details and estimates gladly furnished

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See how you can cut down expenses, save wear and tear on machinery—save work. You will benefit as well as the mill. With power costing 10% of the total mill expenses, textile men find that better lubrication makes a big saving.



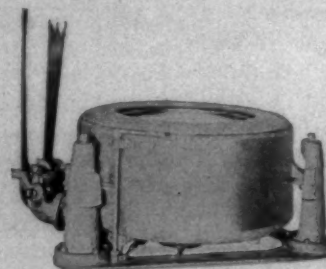
keeps down the friction load because it lubricates perfectly—does not waste away like fluid oil and permit bearings to run partly dry, nor increase friction like grease.

Have you a bearing that persistently runs warm? Tell us about it—maybe we can help you. Testing samples and interesting descriptive matter free.

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Lewis W. Thomason, District Manager, Charlotte, N. C.



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Troy, N. Y.**

SOUTHERN REPRESENTATIVE

FRED H. WHITE, Realty Building  
Charlotte, N. C.

# SOUTHERN TEXTILE BULLETIN

Published Every Thursday By

Clark Publishing Company

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DAVID CLARK.....Managing Editor  
B. ARP LOWRANCE.....Associate Editor

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THURSDAY, MAY 16, 1918

### Hiding Behind Liberty Bonds.

The fact that a person or corporation has subscribed for Liberty Bonds is no excuse for their failure to contribute to the Red Cross and its war service campaigns.

Solicitors in the Red Cross campaign which begins next week will be continually confronted with the statement that "I subscribed to Liberty Bonds."

The man or corporation who took Liberty Bonds simply made an investment that will pay 4 1-4 per cent free of taxes, which is far better than most investments.

The man who took Liberty Bonds still has as much property as formerly and has not given a cent toward relieving the suffering or in any way helping the men who are fighting for him.

The man who hides behind Liberty Bonds in order to avoid giving something to the Red Cross or Y. M. C. A. is worthy of the utmost contempt and is the worst form of slacker.

Men are suffering and dying by the hundreds of thousands in France and it is our duty to do what we can to help them in every possible way.

The Red Cross and Y. M. C. A. are both doing a magnificent work in France and should be liberally supported.

### The Labor Situation.

Mill presidents and treasurers who have in the past been noted for their level heads seem to be losing all control of themselves in the present labor crisis and are piling up trouble and disaster for their mills in the days to come.

The Southern mills are confronted with the most serious labor shortage in their history and the situation will undoubtedly be worse before it is better.

There is about enough mill labor in the South to run all of the spindles but 15 to 20 per cent is in process of moving from one mill to another due to the system of solicitation of labor that has become the custom in most sections.

Wages have been advanced very rapidly but there is little evidence that the advance in pay has increased the labor supply or efficiency.

The first advances were made for the purpose of adjusting the pay envelope to meet the increased cost of living, but most of the recent advances have been purely and simply as bids for labor and have been made solely for the purpose of securing the employees of other mills. Mills that found themselves losing labor as the result of the advances of other mills, advanced wages still

further and recently the bidding has taken the form of shortened hours coupled with more pay.

We would be the last to criticize advance in wages made for the purpose of giving the operatives better living conditions, but we do condemn the "going wild" in the effort to outbid the other mills and keep a temporary supply of employees.

If the cotton mills expected to be in business for only a few months the present system might be all right, but there is a "tomorrow" to be considered when business will be bad and the pressure of adversity will be felt.

The offering of special inducements does not increase the supply of labor but really decreases it because it increases the movement of employees from mill to mill.

The shortage of labor has placed the night operation of some mills on a basis where it is no longer profitable but with the vain hope that labor can be secured it is being continued, often at a heavy loss.

A very competent mill superintendent, who had successfully operated his mills for years, was asked to resign recently because he told the president frankly that it was impossible to secure enough hands to profitably continue a night run.

Several mills which are operated by men who do not guess at costs have recently discontinued night running and many more will doubtless follow their example.

Some sections that have been accustomed to operate night and day are in better shape for continuation than mills which began the double shifts since the boom began.

The mill of 10,000 spindles or more that is operating an average of 80 per cent of its machinery on day run may consider itself lucky under present conditions and there is little relief in sight before the fall.

Every week competent superintendents are losing out because they are held responsible if all the machinery is not in operation and every day overseers are being discharged because the superintendents have shifted to them the burden of getting a full supply of help and they cannot make good in the face of the general shortage.

The first question now asked a superintendent or overseer when he applies for a position is not "What do you know about cotton manufacturing?" but "Can you bring any help with you?"

It is a bad situation and it is time for careful study.

If as much time and money was spent improving the operation of

the machinery, as is spent going to other mill villages for employees, more production could be gotten from 80 per cent of the machinery than from operating full a few days and short the others.

An overseer remarked last week that he slept four hours in three nights, having spent the remainder of the nights scouting in the villages of his neighbors. There should never be any restriction upon the employment of any operative that applies for work but this system of sneaking around mill villages at all hours of the night and offering all manner of inducements is wrong and the industry will pay heavily in the future for the errors of today.

If the superintendents and overseers are to work overtime, let them stay at home and work at adjusting and improving the operation of the machinery.

Instead of paying debts and transportation to bring in families that tarry only a few days, put that money in new machinery and improvements.

Good running work is the best of all inducements with which to keep a labor supply and 80 per cent of the machinery under good conditions can produce more than the entire mill when poorly operated.

### Anonymous.

Last Sunday we received the following in a letter postmarked Greensboro, N. C.:

"Mr. Clark—  
"You can find J. S. Mercer, as (J. H. Mercer), general delivery, Fall River, Mass. There for two weeks. Get busy.

Your Friend.

"May 11, 1918."

John S. Mercer is the man who sent out letters from Charlotte under the name of Labor Information Bureau and was arrested under the charge of being a German propagandist. When his case came before the Federal Court he attempted to tamper with the foreman of the Grand Jury and was fined \$50 and his case continued. Since then he jumped his bond, and his bondholders, all of whom are working men in Charlotte, will have to lose the amount they put up.

We would like to see him brought back and tried but "General Delivery" is a rather hard place to locate a man.

We have a suspicion that this anonymous note was sent to us by Mr. Mercer in an effort to throw us off the right track.

If you buy War-Savings Stamps, you also help your country.

## Personal News

Burt Davis is now speeder fixer in the Alta Vista (Va.) Cotton Mills.

L. C. Vincent, from Fort Mill, is now grinding cards in Mill No. 1, Lancaster, S. C.

Will Hyde, formerly of Lindale, Ga., is now employed as loom fixer at Aragon, Ga.

G. L. Little, overseer of carding, has also taken spinning at Puritan Mills, Fayetteville, N. C.

G. T. King has been appointed superintendent of the Dilling Cotton Mill, Kings Mountain, N. C.

E. D. Brooks of Seneca, S. C., has accepted a position with the Drayton Mills, Spartanburg, S. C.

H. S. Wylie has accepted position as overseer of weaving at the Aragon Cotton Mills, Rock Hill, S. C.

A. J. Rose, Selma, N. C., has accepted position as overseer of carding at the Jackson Mills, Monroe, N. C.

A. L. Oldham has been promoted from second hand to overseer of carding at Erwin Mill No. 2, Duke, N. C.

W. L. Myers, from High Point, has taken the position of overseer of spinning in the Linn Mill, at Landis, N. C.

C. E. Couch, from Mills Manufacturing Company, is now second hand in carding in Judson Mill, Greenville, S. C.

Lee Anders, from Highland Park No. 3, Charlotte, is now grinding cards for the Alta Vista (Va.) Cotton Mill.

R. H. Higgins, from Mayworth, now has charge of the filling section in spinning room of the Erlanger Mill, at Lexington, N. C.

O. A. Sullivan has resigned his position at Cordova, N. C., to become overseer of carding at the Gaffney (S. C.) Manufacturing Company.

T. N. Reeves, from Fort Mill, has accepted position as overseer of carding and spinning for Hamilton Carhartt Mill No. 2, at Carhartt, S. C.

Jim Clark, loom fixer, who was with the Buck Creek Cotton Mills, Siluria, Ala., is now with the Montala Mills, Montgomery, Ala.

R. C. Hill has changed from machinist in the Clinton Mill, Clinton, S. C., to loom fixer in the Great Falls Mill, Rockingham, N. C.

W. A. Ball, who has been superintendent of the Jonesboro (Ga.) Mfg. Co., is going to Rock Hill (S. C.) to start up the Liberty Hosiery Mills.

T. E. Liles of Winnsboro Mills, Winnsboro, S. C., has accepted position as overseer spinning at Marlboro Cotton Mill No. 5, Bennettsville, S. C.

W. H. Hearn, from Hanes Mill, Winston-Salem, N. C., has succeeded A. H. Rogers as second hand in spinning in the Erlanger Mill at Lexington, N. C.

B. F. McClure has resigned as overseer of spinning at the Entwistle Mills, Rockingham, N. C., to become overseer of carding at the Steele's Mills, Cordova, N. C.

G. C. Barfield, who has been with the Swift Manufacturing Company, Columbus, Ga., for the past 16 years, is elected to the position of secretary of the company.

W. E. Williams has resigned as overseer of twisting and winding at the Louisville (Ky.) Cotton Mills, to become overseer of spinning and winding at Quitman, Ga.

Allen Groves has resigned as overseer of spinning, spooling, twisting and winding with the Yount Cotton Mill at Conover, N. C., and is now with the Royal Mill of Charleston, S. C.

Guy M. Vann, who was for seven years overseer of weaving in the Ashcraft Mill at Florence, Ala., has resigned to go as a volunteer in the tank corps and is now at Gettysburg, Pa.

D. B. Murray has resigned the position of assistant superintendent of the Ivanhoe Mill at Smithfield, N. C., which he has held for the past seven years, and is now with Erwin Mill No. 4, at West Durham, N. C.

### ALBANY GREASE

has just rounded out a half century of usefulness. Its incomparable record of lubrication service during the past 50 years stamps it as a most efficient and economical lubricant. It can be used on engines, motors, line shafting, looms, twistors, spinners, etc., with highly satisfactory results. Write for samples.

### ALBANY LUBRICATING CO.

708-10 Washington St., New York



#### Franklin Mills.

#### Greer, S. C.

L. L. Chandler.....Superintendent  
J. T. Kirby.....Carder  
J. C. Neal.....Spinner  
E. K. Hudson.....Weaver  
J. A. Hughes.....Cloth Room  
W. M. McCarter....Master Mechanic

#### Aragon Cotton Mills

#### Rock Hill, S. C.

R. L. Jordan.....Superintendent  
C. L. Becknell.....Carder  
J. C. Hooks.....Spinner  
H. S. Wylie.....Weaver  
W. B. McWaters....Cloth Room  
L. B. Alley.....Master Mechanic

#### Kinston Cotton Mills.

J. B. Meacham.....Superintendent  
E. A. Holt.....Carder  
W. N. Wilson.....Spinner  
J. J. Roddy.....Master Mechanic

#### Tolar Hart and Holt Mill

#### Fayetteville, N. C.

H. C. Duffer.....Superintendent  
A. Cooper.....Carder  
C. M. Graddy.....Spinner & Winding  
W. M. Davis.....Master Mechanic

#### Advance Manufacturing Co.

#### Fayetteville, N. C.

J. M. Hodges, Jr....Superintendent  
G. W. Davis.....Weaver

#### Puritan Mills.

#### Fayetteville, N. C.

J. E. Wicker.....Superintendent  
J. J. Maloney.....Asst. Supt.  
G. L. Little.....Carder and Spinner  
J. M. Waddleton.....Weaver  
W. W. Maness.....Beamer  
B. C. Cockmon.....Dyer  
C. V. McGuire.....Finisher  
James oPwell.....Master Mechanic

J. W. Donahoe, for six and one-half years, superintendent of the Dixie Spindle & Flyer Company of Charlotte, has resigned and has accepted a position with the Exposition Cotton Mills, Atlanta, Ga., overhauling machinery.

T. F. Hay, formerly night superintendent of Calhoun Mills, at Calhoun Falls, S. C., has accepted position as Government cloth inspector and is now at Rhodhiss, N. C. His son, Clyde Hay, who joined the army at the first call last spring, left Camp Sevier at Greenville recently for the North.

#### Cape Fear Cotton Mill.

#### Fayetteville, N. C.

J. M. Hodges, Jr....Superintendent  
J. B. Belch.....Carder  
M. F. Starling.....Spinner

#### Capelsie Cotton Mills.

#### Troy, N. C.

J. K. Cole.....Superintendent  
D. T. Batton....Carder and Spinner  
W. R. Stevenson...2d Hand Carding  
Shelton Hannah...2d Hand Spinning  
L. A. Honeycutt....Master Mechanic

#### Smitherman Cotton Mills.

#### Troy, N. C.

D. M. Nordon.....Superintendent  
L. H. Cole.....Carder and Spinner  
E. L. Hayes.....Weaver  
S. J. Golden.....Cloth Room  
R. W. Nelson.....Master Mechanic

#### Highland Park Mill No. 2.

#### Rock Hill, S. C.

C. N. Steed.....Superintendent  
Wm. Hovis.....Carder  
J. H. Green.....Spinner  
G. R. Mathew.....Weaver  
Perry Faulkenbury.....Beamer  
J. R. Wentz.....Dyer  
S. K. Lineberger...Master Mechanic

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New England Office:  
87 Summer Street, Boston, Mass.

Southern Office:  
Danville, Virginia

## MILL NEWS ITEMS OF INTEREST

**Gastonia, N. C.**—E. S. Draper, landscape architect and city planner, has been retained by the Myrtle Mills, Inc., to plan model mill village developments for the new mill.

**Roanoke Rapids, N. C.**—The Rosemary Mills is preparing to erect this summer a women's home in the mill village along the lines of several other progressive mills of the south.

**Carrollton, Ga.**—E. S. Draper, landscape architect and city planner, has been retained by the Mandeville Mills, to act in conjunction with J. E. Sirrene, mill engineer, Greenville, S. C., in planning mill village improvements.

**Raeftord, N. C.**—The Raeftord Power and Manufacturing Company have recently put in two Saco and Lowell spinning frames, one Foster winder. They have also put electric lights in all the operatives' houses, and bought a canning outfit to be used by the people of the mill village.

**Mayodan, N. C.**—Thomas Hill, head of the New York sales office of the Mayo Mills of this place has resigned to become head of a new company formed recently under the name of the Hill Knitting Company at Lebanon, Pa., and will manufacture underwear for the government at the present.

**Barnesville, Ga.**—J. C. Collier, D. C. Collier, of Barnesville, and Floyd S. Corbin, of 10 Wall street, New York, are perfecting plans for the erection of a cotton spinning plant to be located at or near Barnesville. They wish information, quotations, etc., from all machinery people.

**Lavonia, Ga.**—The Russell Cotton Mills advise that their concern is an entirely new organization and that it is not a reorganization of the Lavonia Cotton Mills, as reported last week. It will begin operations about the first of June, weaving heavy duck. The capital stock is \$100,000 and J. R. Dortch is president; J. P. Stochton, treasurer and C. A. Sweet, manager.

**Kings Mountain, N. C.**—The Phoenix Mill is just completing many substantial improvements which add greatly to the appearance and convenience of the village. Many improvements have also been made about the mill. Electricians are busily engaged wiring the houses and streets for electric lights. The operatives are taking great pride in planting flowers and gardens.

**Rock Hill, S. C.**—The latest enterprise secured by Rock Hill is the Liberty Hosiery Company, previ-

ously mentioned, for which a commission has just been issued by the secretary of state. The capital stock will be \$25,000 and the incorporators are J. C. Cauthen, J. B. Creighton and C. L. Cobb. It is planned to start this concern about the first of next month, the entire second floor of the Barber-Sykes building, on Hampton street, having been secured. The machinery has already been ordered and it is expected will reach the city by the

time the interior of the building is ready for it. About 70 machines will be added later as the business develops. Men's half hose will be manufactured.

### Greenville Belting Company Organized.

The Greenville Belting Company has been capitalized under the laws of South Carolina for \$10,000, and will do a general leather belting

business, featuring the re-working of old belting, as well as build new belts for emergency purposes. They will act as Southern representatives for the Bradford Belting Company, but will go out after the repair work stronger, as well as new belting. Following are the officers of the new company: M. C. Sanders, president and treasurer; J. Adger Smyth, Jr., vice-president; C. Graham Slaughter, secretary. Directors, C. G. Neff, president the Bradford Belting Company, Cincinnati, O.; A. D. L. Barksdale, general manager the Citizens Trust Company, Greenville, S. C.; A. B. Carter, secretary, Southern Textile Exposition, Inc., Greenville, S. C.; M. E. Garrison, superintendent Glenwood Cotton Mills, Easley, S. C.; J. Adger Smyth, Jr., president Duncan and Watts Mills, Greenville, S. C.; also C. Graham Slaughter and M. C. Sanders are directors.

M. C. Sanders, who organized the Greenville Belting Company, is one of the most popular traveling men in the South and as Southern representative for the Bradford Belting Company has developed a very large Southern business for that company.

### Link Belt Company Take Big Orders.

As an evidence of the favor in which chain drives are growing in the South, J. S. Cothran, Southern representative of the Link Belt Company, took orders for 731 chain drives in a period of 10 days. These orders were for the Spartan Mills, Spartanburg, S. C.; Easley Mill, Easley, S. C.; and Brandon Mill, Greenville, S. C., all of which recently decided to change to the electric drive.

### Erlanger Is Busy Gardening

Erlanger, N. C.—Miss Linda Clement, head of the home gardening campaign, is urging the people of the village to double last year's record by canning 35,000 quarts of vegetables this summer. She is urging the people to feed their families next winter from their pantry shelves. By special bulletins she is furnishing all necessary information, and telling just what to plant and when to plant it.

Mr. S. McK. Kevan, former instructor in the Berry school, Mt. Berry, Ga., has just arrived to take charge of the landscape gardening of the village. Mr. Kevan is an expert in his line, and will without doubt, make great improvements in the village.

### Rosemary Women Wear Woman-Alls.

Roanoke Rapids, N. C. —The fact was mentioned sometime ago that attempts were being made to get all women workers to wear the women overalls. The efforts in that direction are proving very satisfac-

## E. S. DRAPER

Landscape Architect and City Planner  
506 Trust Building, Charlotte, N. C.

### PROFESSIONAL SERVICE IN

- Laying out New Mill Villages
- Improving Old Mill Villages
- Beautifying Mill Grounds and Mill Villages

## BOSSON & LANE

### Manufacturing Chemists

Specialties for the Textile Trade

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ATLANTIC, MASS.



## Clean Quality and Extra Service

Do you appreciate what delivery from Charlotte means to you with freight embargoes on from all points North? Southern Manufacturers, who for years bought their Belting in the North are now buying their Leather from us.

With skilled workmen and careful selection of Leather in our manufacturing department, if given a chance, we can prove to you what CLEAN QUALITY AND EXTRA SERVICE means.

For repairs or trouble work our experienced belt men are at your disposal, no matter what belt you use.

**Charlotte Leather Belting Company**  
CHARLOTTE CHICAGO

tory, the large majority of the women workers being clothed in that way at present, and it is firmly believed that before a great while practically all of them will see the advantage of wearing such clothes while at work in the mill. It is believed that it will be a great step towards efficiency if all of the women workers in all of the mills in the south would adopt that type of garment while at their work.

#### Orr Cotton Mills Directors Meet.

The annual meeting of the stockholders of the Orr Cotton Mills was held in the offices of the company. President Hammett submitted reports showing that the mill is in splendid condition and that the past year's operations have been most satisfactory.

The following directors were re-elected for another year: E. P. Frost, Charleston; E. P. Smith, New York; J. E. Sirrine, Greenville; J. R. Vandiver, H. A. Orr, M. P. Orr, J. Fulwer Watson, R. S. Ligon and Jas. D. Hammett of Anderson.

The directors met subsequently to the meeting of the stockholders and declared the regular 4 per cent semi-annual dividend to be paid on July 1. The directors also declared a special dividend of three per cent to be paid on June 1.

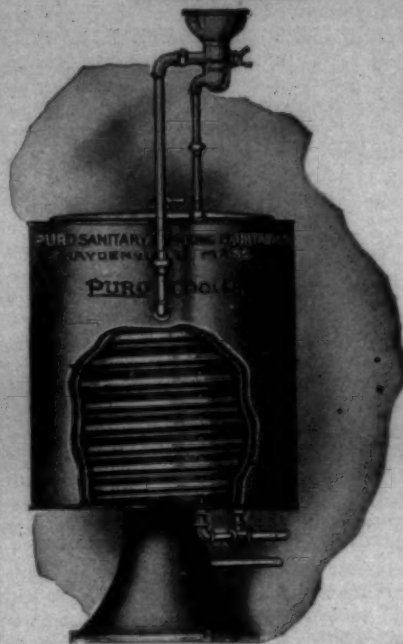
The directors re-elected officers for another year as follows: Jas. D. Hammett, president and treasurer; R. S. Ligon, vice president; J. B. Humbert, secretary and assistant treasurer.

#### Monroe Calculating Machine Company Representatives.

J. C. Butner, who has been ably representing the Monroe Calculating Machine Company at New York city, assumed charge of Monroe interests in the states of Georgia, Alabama, and eastern Tennessee, with headquarters at Healey building, Atlanta, Ga., on April 1st. He takes over the post left by J. R. Ramsay, who is to represent the Monroe in a similar capacity at Philadelphia. Mr. Butner is a native of Georgia and his early training as an accountant was received there. He is thoroughly acquainted with the service needs of the Southern business institutions and comes back to the South with a clear conception of Monroe ideas of service to its customers.

J. H. Butner, brother of J. C. Butner, with headquarters for North Carolina at Charlotte, 404 Realty building, has been appointed the representative of the Monroe Calculating Machine Company, for the states of North and South Carolina. A Monroe office in South Carolina will be opened up very shortly under the direct supervision of Mr.

## PURO COOLER



THE PERFECTION IN  
ICE COOLING TANKS

40 Ft. Coil Pipe  
Capacity 100 lbs. Ice.

Locking Cover with Rubber  
Gasket

AIR TIGHT TANK—NO  
WASTE

and Cannot be Used for a  
Refrigerator

With the Only Genuinely  
Sanitary Drinking Fountain

IT PAYS TO GET  
THE BEST

Puro Sanitary Drinking Fountain Co.,  
Haydenville, Mass.

Southern Agent  
E. S. Player, Greenville, S. C.

## He Maims as Many Men as the Kaiser—

Old fashioned set  
screws have no place  
in the modern shop.  
Throw these little  
devils out of your  
plant.



## Allen Safety Set Screws Make Shops Safe for the Workers



They have no projecting heads and are flush with the surface when screwed into place. They put an end to all troubles of broken heads and drilling or chipping out mushroomed screws.

"Allen" Screws are made from high test steel bars. All sizes from 1/4 to 1 1/2 in. furnished.

We'll gladly send you free samples which you can put to any strength test you want—the test will convince you that while you may have seen screws that looked like Allen Screws, you have never seen any with their strength and pressure resisting qualities.

Write for Circular No. 10 and free samples.

The Allen Mfg. Co., 135 Sheldon St., Hartford, Conn.  
People's Life Bldg., Chicago, Ill. 173 Princess St., Manchester, Eng.

## "LEATHEROID" SEAMLESS ROVING CANS



Cars, Boxes, Barrels  
and Superior Mill Re-  
ceptacles sold by  
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Write us direct for  
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Leatheroid  
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Selling Agents for the  
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Successors to  
Leatheroid Mfg. Co.

Butner. Mr. Butner has but recently allied himself with the Monroe organization, but for several years he has covered the territory which he is now covering for the Monroe in both North and South Carolina as a traveling salesman.

#### Franklinville Manufacturing Co.

Franklinville, N. C.

G. C. Russell.....Superintendent  
James Buie.....Carder  
A. V. Jones.....Spinner  
H. B. Buie.....Weaver  
W. D. Maner.....Master Mechanic

#### Raeform Power and Mfg. Co.

Raeform, N. C.

J. F. Lackey.....Superintendent  
J. W. Lee.....Carder  
H. M. Maples.....Spinner  
Manley Rhye.....Winding  
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SOUTHERN OFFICE, Empire Building, ATLANTA, GEORGIA

### Conservation of Fuel in War Times.

(Continued from page 10.)

strong a factor, and the limitations of their knowledge, which have resulted in a certain level of plant efficiency, will not suddenly expand as a result of calling upon them to join in the movement to conserve fuel.

Mr. Walter Polaklov, the very excellent authority on power-plant practice, has pointed out that, to merely formulate rules and then conduct a monthly guessing contest as to what the showing will be, is not the most practical method for securing adequate results. Instead, the standard for a plant may be fixed by analysis of the conditions, and the operative performance may be brought to that standard with the same certainty of control that is possible in any case of executive management. His method does not forbid the raising of the standard as conditions change, through improvement of the plant, or the development of skill, or other factors, but on the contrary suggests a keeping pace always a step ahead of the conditions.

It certainly is more practical to aim at definite improvement in operative results, than to merely exhort the chief engineer to do his best, and then to entertain vague hopes that somehow, something better will happen.

The matter of fixing standards is one that should be handled in the most competent manner. To do otherwise is far more costly, and the cost of incompetence continues, until terminated by an able and adequate grasp of the situation. The "home-made" brand is usually a costly substitute for the desired article, and nowhere more so than in the field of special service.

In no case is it advisable to leave the fixing of standards in the hands of the engineer in charge, unchecked by another mind. If a qualified steam-power specialist is not immediately available, it would be better for the highest ranking executive who is in authority over power-plant operation, to work out the standards jointly with the engineer, for the effect upon the mind of the subordinate is to stimulate his further efforts to excel.

The second step is properly the selection of the fuel, but unfortunately, under prevailing conditions, there is less of choosing than in normal times. The best results are obtainable only when the fuel is rightly adapted to the plant. If chimney draft is weak, the difficulty of burning low grade fuel is correspondingly more difficult, and for every installation there is a first choice among fuels. The third step is the training of the fireman. There is a right way to do everything. Sometimes there are several ways that are wrong. Firing a boiler is no exception, and the fact that for years a laborer has shoveled coal into a furnace, does not make him a fireman in the modern acceptance of that term by the engineering profession.

Under the best and most profitable development, boiler room practice has become almost an exact science, and the handling of the en-

tire cycle of the day's duties, is planned with the most careful forethought. Nothing is left to mischance which can be made the subject of reflection. The firemen are not merely given a shovel, and told the schedule of working hours, but are instructed in every duty of the day, and shown the difference between the right and wrong ways of working, so that they become, in truth, skilled firemen.

It has been found both practical and necessary to determine the manner in which every detail of the boiler room routine should be performed, reducing the description of each to writing in the form of instructions. This may seem like over-refinement of method to some who are not familiar with the achievement of the so-called full standard, or one hundred per cent rating, in power plant operation, but the "proof" of this particular "pudding" is in the ash heap, and is unmistakable. Actually, it is the plain, common sense plan of finding out the one best way to do each part of the work, and then, to prevent the excuse of forgetting, writing it all down, instead of trusting to memory. The best of it is, that it gets the result desired, instead of a haphazard one.

The engineers in charge are instructed with equal care, and are required to sufficiently supervise the work of the firemen, to enforce the complete observance of the intended practice. In some very large plants where a chief fireman is in charge of the furnaces, this supervision is exercised by him, and he usually instructs new men who are taken on as firemen; but the engineer on watch, and over him the chief engineer, are responsible, as "higher-up", for the full conformity of the boiler room force to the requirements.

In many plants there exist fundamental defects in design and construction of the power plant, which materially lower its efficiency. What steps should be taken to remedy such defects, depend upon the precise circumstances of the case. It is easy to determine concerning most such matters whether or not it is profitable to make a change. A saving that will amortize the investment and afford a reasonable profit is of advantage to make, if viewed only from the standpoint of financial outlay, but there are usually other factors to be given due weight, and each case has to be considered in its entirety in order to reach a fair and ultimately satisfactory decision. Among the more common causes for excessive fuel consumption are the following, which relate to the power plant:

#### DESIGN.

Combustion chamber of incorrect dimensions.  
Improper grate bars.  
Faulty design or position of bridge wall under boiler.  
Poor draft.  
Leaky blow-off valves with submerged outlet.

#### MAINTENANCE.

Leaky steam valves.  
Leaky steam pipe connections.  
Steam leaks in noisy places.  
Air leaks around furnace doors.  
Air leaks in furnace walls.

Air leaks in vacuum chambers and connections.

Pipe covering lacking or defective.  
Absence of covering from flanges of connections.

#### OPERATION.

Non-effective control of draft.  
Dirty flues.  
Scale in boiler.  
Faulty regulation of stroke cut-off.  
Excessive back pressure.  
Low vacuum.  
Improper condensing.

In their transmission of power as energy and in its application, the loss takes the form of conversion, friction, or of overcoming inertia; while in its consumption as heat, there occur losses due to uncontrolled radiation. Other exceptional losses occur that are not to be included in either of these classes. For example, in the case of a large forge shop where inability to maintain enough steam pressure to operate the hammers brought the management to the decision to increase the boiler capacity, investigation disclosed the fact that the hammer valves were incorrectly set and live steam was blowing through unchecked. This had not been observed by plant employees, for the roof concealed the exhausts so that they could not be seen from any point in the company's yard. Before this fault was located, the shop had suffered a serious loss of output through enforced suspension of work, an average of two hours a day for many weeks.

In the list given above, with the possible exception of the first, all are matters that can and should be dealt with, without toleration. The small items cannot be disregarded except under penalty of an inevitable loss. Truly, "many a mickle makes a muckle." The aggregate of many small leaks of steam cost no small sum in a year's time. There is no such thing as fooling the steam gauge.

Correct design and dimensions are a fundamental requirement for economical operation. Too great care cannot be exercised in choosing equipment. The best available authority should invariably be consulted. The services of a competent consulting engineer, who serves under a standing retainer, are a constant economy and source of profit. Some questions cannot well be decided, except in their relation to a plant as a whole and a detached opinion may be of little value. Hence the permanency of association takes on value as it is continued. Existing plants must be carefully examined to determine correctness of design or their status in this respect must be regarded with suspicion. If the point has been reached of determination to retain the full profit, that has been lost in the past, through needless consumption of fuel, then by all means it will pay to start with full knowledge of what is wrong in the design of the plant, so that its improvement may be dealt with according to a prepared plan, whether action is to be taken at once or later. The small boy's definition "Determination is believing what we know is not so," seems to have been learned and taken to heart by some business

men who are apt to deal with even major matters in half measures.

The virtue of cleanliness is especially important in power plant operation. Dirty flues, and scale in the boiler will stop more heat than is commonly supposed. Soot accumulations check heat radiation as much as asbestos of five times their thickness. In other words, one-sixteenth of an inch of soot is equal to five-sixteenths of an inch of asbestos. Scale checks heat transmission as much as eight times its thickness of steel. Scientific boiler compounds, meeting exactly the needs of the water which is being used, and up-to-date soot blowers, that keep boiler tubes clean all of the time, are highly profitable to employ.

When all else is done there remains the man himself to deal with, for the attitude toward fuel economy held by the fireman is important. He may comply with regulations unwillingly or with enthusiasm. The most practical way to hold his live interest is to supplement a firm attitude of consistent fair dealing with participation in the savings effected. If he is made a partner in the enterprise of saving fuel, with the company furnishing all of the "know-how" while he only has to do as he is told, and share in the profits in proportion to his diligence, it is a rare man who does not quickly fall in line and give a full measure of co-operation, that becomes more intelligent and effectual as time passes. The man who will not do this should be taken out of the boiler room in any event, for obedience to orders in handling a boiler is important to the safety of others and it should be wholly spontaneous and not reluctant, nor sulky.

It is not difficult to find a basis for giving an incentive in a form that rewards a man in proportion to his just deserts, but it is wise to take the step so carefully, and with such thorough preparation that it is done permanently. To give a special reward, and in a short time withdraw it, because it is excessive or otherwise unsuitable, may destroy the confidence of the beneficiary in any subsequent adjustment. This would be a direct incentive to "holding back" thereafter. It pays rich dividends to "be sure you are right and then go ahead."

Incentives are variously based:

Upon the quantity of water that is evaporated per pound of fuel used, in which case a standard is set and the increases for higher economy shown.

Upon the reduction of coal consumed.

Upon the reduction in per centage of ash.

Upon the reduction of other expenses in the power plant.

Upon improvement in combustion as indicated by test of flue gases.

Others that the first and last are too partial in character to be really practical, although several elements may be combined to make the incentive most effective. The last is a technical method, and is beyond the understanding of most firemen. Moreover, when used alone, it falls short of the objective sought, which is to control the quantity of coal used, and to burn all fuel to ashes,

while maintaining the desired steam pressure and operating in all ways with economy. The best results may be secured by giving an incentive on a basis that is understood, and therefore appeals to the comprehension of the fireman.

This is by no means all that it is necessary to do to secure proper operation of the power plant. Current knowledge of cost in every form that it takes is essential, and to be of most service, this must be compiled in a manner that furnishes and facilitates comparison. This information should be supplied to both the chief engineer and to the executive to whom he reports, and it must be used by both, particularly by the executive, if a uniform high standard of performance is to be achieved.

The moral effect upon the chief engineer of having the full record of his department passing before "the man higher up," while he can in no wise cover short-comings of himself or his subordinates, is very healthy and stimulating. Some portions of the record can be brought to the current notice of the firemen with advantage, particularly the figures of coal consumed, weight and ratio of ashes, water evaporation ratio, and the showing of flue gas tests. Even though they do not fully understand these latter, there is some influence upon their minds produced by the test showings.

The value of the coal handled daily by a fireman is enough so that even with the old price levels there was plenty to divide as a reward for saving fuel. With the present high

prices there is all the more reason for giving inducement to savings, for the share to the owner is much greater. The direct and indirect incentives which may be employed with power plant employees are the most powerful agency by which continued effort on their part may be assured.

Some of the ways in which fuel can be conserved in the mill itself have been indicated by the list of causes of waste. Transmission losses are frequently high. The subject of lubrication is still treated with old-time rule-of-thumb methods in many plants where scientific standards and methods in processes are employed. The sum of these losses may amount daily to a greater total than those for which the fireman is responsible and add to the annual coal bill many hundreds, or thousands, of dollars.

Shafting out of line wastes power as well as wears bearings excessively. Idle shafting and idler drive wheels, on counter shafts and machines, consume a large amount of power. The more general use of friction clutch drives, direct from line shafting would be a source of considerable savings. Inertia is the foe of economy.

Frequently there is found an arrangement of shafting that is wasteful of power, which has resulted from additions made as a plant increased in size, or as more machinery was added, and in most such cases re-arrangement furnishes an economy.

Waste of power is frequently found in needless conversion and

reconversion between motors and shafting, or superfluous intermediate shafting. The remedy is obvious.

In plants where heat is used in processes there commonly is great waste in unchecked radiation. Every man who ever made camp knows that water boils more quickly in a covered kettle. That means that less heat is required if surface radiation is checked. The mill man who does not know this fact of elementary physics probably does not exist.

Nevertheless it is unusual to find a plant where there is full protection against needless waste of heat. Distribution lines are insufficiently covered, or sometimes not at all. Drip is not properly disposed of to keep steam lines free from it. When steam is wanted dependence upon blowing the lines clear before steam is delivered is customary. Steam kettles and jackets are not insulated.

Steam is wasted in a thoughtless confidence that there is boiler capacity to provide all that is wanted regardless of what it costs. It is the condition that existed before asbestos coverings were invented and it casts a long shadow down the pathway of progress.

Wasted heat let loose in a factory work room has the further costly effect of discomfort to employees. Beyond all possibility of denial, that form of discomfort reduces human efficiency and adds to the employer's cost and loss.

Perfect insulation is cheaper than constant radiation. Lubrication costs less than friction. Maintenance

is less expensive than deterioration. Right equipment is more economical than that which is ill-adapted to its use. Intelligence is more profitable than ignorance.

These contrasts sum up the wide difference between fuel conservation and waste.

Individually the members of these associations can doubtless accomplish much in the plants under their control, and will thereby render substantial aid in winning the war, as well as help the net earnings of the business.

Of far greater moment is the service to the country, and to posterity that can be rendered by their collective power through these associations, by enlisting all agencies possible to engage in work for the cause of fuel conservation.

#### Putting Both Feet In It.

In the course of an evening reception a woman who had none too good a voice sang for the guests. One of the guests, according to the Argonaut, turned to a meek looking little man who sat at his side, and said:

"How awful! Who can she be?"

"That," replied the man addressed, "is my wife."

"Oh, I b-b-beg your pardon!" stammered the other. "She's really a—I know she'd sing beautifully if she made a better selection of her music. Who do you suppose wrote that song?"

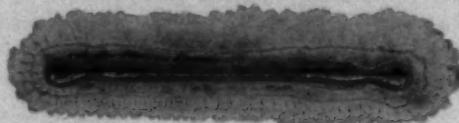
"I did," replied the meek looking little man.—Exch.

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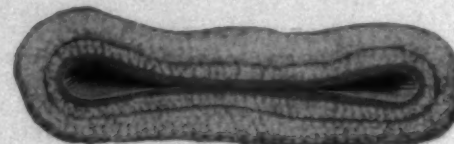
Bi-Lateral construction makes it the one hose for motor apparatus.

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**Necks.**

The neck is that part of the human house which prevents the head from slipping into the chest.

The neck of a bottle is that part of the bottle's anatomy which allows the contents of the bottle to slip into the human chest.

Giraffes, swans and clams are noted for their necks. A neck isn't much of a thing to be noted for. It collects dirt and curious glances. A clam's neck, therefore, has some advantages over other necks.

A snake is an animal whose neck begins just back of its eyes and continues to the tip of its tail. Snakes digest their food in their necks, and when one has a pain he does not know whether it is caused by indigestion or a sore throat.

Collars, ties, beads, arms, soap and ropes are some of the things which may be put around necks.

When arms are put around one neck it may be because another neck wants a string of beads put around it. Married necks soon learn to tell when arms are put around them for the purpose of stringing them.

Collars are put around men's necks so that the neck will be uncomfortably aware of its existence. A stiff collar prevents the neck from holding the head at half mast. In medieval days men wore a ruff on their necks, but these were discarded as soon as it was discovered that stiff collars were just as rough on their necks. Man evidently has an inherent desire to be a rough-neck.

A tie is put around a neck to give it a holiday aspect, just as buildings are decorated with bunting during old home week. No one knows why gentlemen wear them, for a nude gentleman's neck, that is to say, a gentleman's nude neck could not be any more ungainly than some of the atrocious ties which are put around it. Women bear the brunt of Style's torture at their waists, but men get it in the neck.

A woman's collar is sometimes

put around her neck and sometimes dwells in an entirely different neighborhood. When a woman's collar is not acquainted with her neck, it is said to be cut low in the neck. This is a chaste way of anatomy. Conversation thus covers up certain parts of the body which are not protected by clothes. Some female collars might more appropriately be called chest protectors, shoulder straps, suspenders or belts.—Parks Pipe Parables, published by the G. M. Parks Co., Fitchburg, Mass.

**Enough Piece Goods to Go Around.**

There are some in the trade who figure that, for the coming year, the consumption of cotton goods by the civilian trade will be but about 35 per cent of normal and that, in the long run, those who are now so worried about not having sufficient material to take care of their wants, may find that they have enough to go around.

"There are two reasons why I believe that the civilian consumption will be decreased to about 35 per cent of normal for the coming year," said a trade factor, discussing the situation. "In the first place, it will increase to such an extent that there will be very little more than 35 per cent of normal left—for the public. In the second place, in view of the added importance being placed on economy in general, it is doubtful whether cotton goods will be bought very freely in the future, especially after several months when some of the top prices that have been paid for gray goods begin to manifest themselves in the figures that are asked from the public. I understand that, already, while receipts continue above normal, that the yardage sales in some of the largest retail centers have fallen off, indicating the attitude of the buyers. It appears to me that, as the stores find it necessary to ask more for their cotton goods, the volume of business will drop in direct proportion."

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Name of Mill.....

Town .....

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..... Superintendent

..... Carder

..... Spinner

..... Weaver

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..... Dyer

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New York

Southern Office

Greenville, South Carolina

# Starch

### Textile Show an Exhibition.

Chester I. Campbell, general manager of the exposition, makes the following statement about the show: "The Textile Exhibitors' Association, Inc., has accomplished much for the entire industry in staging the first real textile exposition that has ever been offered to the public in this country. It has been a great educational force to the industry as well as to the public, and on every side it has been regarded as a prelude to a 'Forward, march!' to America's rightful place in the textile markets of the world. 'Made in U. S. A.' textiles have been uncovered to the world in a manner befitting their high standard. Visitors from a dozen foreign countries have had a chance to get an idea of the colossalness of the industry in this country and the quality of the goods that we are making."

The previous "shows" given under the auspices of the Textile Exhibitors' Association in Boston have been essentially "machinery shows," but the one just concluded has been an exposition rather than an exhibition. When we first decided to come to New York to stage this "show" it was along the lines of previous exhibitions. The whole world was looking to our markets for textile machinery, mill supplies, dyes and finished fabrics, and the thought came to us—why not show these peoples just what we have to offer? Hence the addition of the fabrics displays and the fashion show.

If we have not accomplished anything, the exposition has created a great interest that will lead to a wider spread demand for "Made in U. S. A." textiles. It has given thousands of students in Greater New York a comprehensive idea of the romance and wonders of our textile machines, aroused an interest in the creation of an American art in textiles which is bound to bring forth distinctive and artistic designs that are worthy of our skill in the manufacture of fabrics.

Again it was the first time that the manufacturer of silk, cotton woolsens and knit goods have ever co-ordinated with the designer and garment maker, and this marks an epoch that in the near future may result in model houses of fashions which supply the fashion for this

country rather than France. It is, perhaps, far away, but the groundwork has begun.

The big note in the exposition, to my mind, was the clear exposition of the fact that America will eliminate Germany from the dye trade in this country. The tests have convinced the manufacturer and the public, or at least those who have a vital interest in colors, that it is German propaganda to state that American dyes cannot be guaranteed.

It was a great big get-together gathering of every branch of the industry, and on all sides I have heard nothing but enthusiasm. Everybody had their share of business. Hundreds of foreigners gave large and profitable orders for machinery and mill supplies, while the finished goods maker found many new markets for his fabrics. From a commercial viewpoint it was by far the greatest of any of the textile exhibitions.

### Coal Loss Through Avoidable Belt Slip.

(Continued from page 9.)

termination, now, it is a simple matter to apply it to the chart as has been done and determine the money loss per year due to such slip.

Furthermore, belts which do not slip do not require tension and can be run easy or slack—every belt thus relieved of its tension reduces by that much the total plant friction load and this means also a longer-lived belt, cool bearings, less oil used, less time of men and machines lost during repairs and more power at the machines, for friction represents lost power and with the existing coal shortage, every ounce of power is valuable.—American Industries.

Two sons of Erin were digging a ditch for a gas-main. One of them was a trifle handicapped by the shortness of the handle on his pick. His back was aching from bending over so far and he had paused for a moment, when his companion remarked:

"Say, Mike, phwat wul ye do ef ye had a million dollars?" "I'd add four inches to the handle o' this pick," was the reply.

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W. S. S. COST DURING 1918					
April	\$4.15	July	\$4.18	Oct.	\$4.21
May	4.16	Aug.	4.19	Nov.	4.22
June	4.17	Sept.	4.20	Dec.	4.23

W. S. S. WORTH \$5.00 JANUARY 1, 1923

## Cotton Goods

New York.—There is a diversity of opinion among print cloth mill men and sellers of gray goods, it is said. Business at the end of the week was anything but brisk as compared with the hustle and bustle noticeable in the market a few weeks ago. Some sellers stated about the only construction selling in quantities was the 60-72s, which second hand sellers continue to sell at 18½ cents. The 64-60s are slightly more firm than they were the fore part of the week and the speculators are said to be offering only late in the year deliveries at present.

This fact leads a number of the trade to believe that the second hand sellers are pretty well cleaned up and that first hand prices will in the near future rule the market almost entirely. Others believe to the contrary, however, and are withholding orders through the belief that quotations will be shaken down a bit more ere long and that the mills will in course of time meet jobbers' prices.

In the opinion of some mill men and New York distributors, higher prices will again prevail for practically all descriptions of gray goods. The government is said to be purchasing enormous quantities of goods as is the Red Cross, but most of this business is going direct to the mills in New England and the South as the jobbers cannot supply these buyers with much of the stocks they need.

Ginghams, which are higher than ever before, are reported to be selling as freely as when values were decidedly lower. The demand for this fabric is much greater than the output of the mills and according to communications received in New York from the mills even all old customers' orders will not be fully filled.

The trade continues to discuss the sale of 86,000,000 yards of denims to the government. This is said to be the most extensive order for cotton fabric ever placed by any one buyer. In importance it greatly exceeds the order for the couple of hundred million yards of gauze for hospitals

use recently distributed. From various sections of the country over-all mills are reported closed for lack of materials and other fear similar trouble because of the recent requisition of blue and brown denim for government use.

Fair business in print cloths of special widths for June and July, at prices considered to be good. The demand for print cloths in general was said to be good, with considerable business passing, more cloth being bought from first hands, it was said, than had been true for some time past. According to several opinions, 64-60s, 27-inch, 7.50 yard were not available any longer at less than 13 cents.

The general asking price for 44-40s, 38½-inch, 8.20 yard had become 12 cents. There were some who felt that they could bring goods out with a firm bid of 11½ cents, however, nothing was reported to make this an assured fact. The figure on 56-44s, 6.60 yard in the South was said to be 14½ cents for contract from first hands.

In several centers, it was said that 60-48s, 38½-inch, 6.25 yard in the South, for this month, could be had at 15½ cents. In the East, it was reported, there were some who were bidding 15½ cents for nearby deliveries on this construction. Some Southern spots of 64-56s, 38½-inch, 5.50 yard were heard sold at 17½ cents. The best that could be done on 72-76s, 4.25 yard, according to several opinions, was 22½ cents. An offering for August by second hands was heard at 22 cents. This was considered indicative of considerable added strength in this number, for, early last week, quite some business at 21 cents was reported.

In sheetings, it was felt that 14 cents had become the figure for 44-40s, 36-inch, 6.15 yard goods. A first hand quotation of 14 cents for August, on this construction, was heard. First hands asked 23 cents for 56-60s, 4.00 yard for October and November. It was reported that second hands were offering 48 squares, 5.00 yard at 17½ cents, and 48-40s, 36-inch, 5.50 yard at 15½ cents.

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Direct and Sulphur Colors

Cotton Softeners

Chloride of Lime

Soda Ash

A. E. RATNER & COMPANY, Inc.

1143 ST. JOHNS PLACE

BROOKLYN, N. Y.

## "Amalie" Softening Oil

OR TALLOW?

Which do YOU use in the Size?

One is the NEW WAY—  
the other the old?

The MOST PROMINENT MILLS in the South  
PREFER to Size their fabrics with a mixture of

"AMALIE" SOFTENING OIL

Let us tell YOU why—INVESTIGATE and learn HOW your overhead can be REDUCED.

L. SONNEBORN SONS, Inc.

262 PEARL STREET

NEW YORK, U. S. A.

BRANCHES: BOSTON—PHILADELPHIA—BALTIMORE—LOS ANGELES

Southwestern Distributors: Sonneborn Bros., Dallas, San Antonio, Tulsa

# FOR SIZING SLASHOL

WHAT ELSE---When it is the only sizing agent that is absolutely neutral, and needs the assistance of no other compound, oil or tallow. Will not allow the size to chafe or shedd, and will increase the tensile strength of the yarn.

1832

1917

Wm. C. Robinson  
& Son Co.

Baltimore, Md.

CHARLOTTE  
GREENVILLE, S. C.  
NEWTON, N. C.  
ATLANTA  
BIRMINGHAM  
NEW ORLEANS

# The Yarn Market

Philadelphia. — Inquiries during the week were plentiful but the aggregate amount of business actually put through was comparatively small. The majority of inquiries were for coarse yarns and quick deliveries and were largely from manufacturers engaged in filling war orders.

The great majority of the inquiries are fully covered on yarns, but they are not getting deliveries. Dealers, who have sold yarns to manufacturers to fill war contracts say that embargoes at different shipping points in the South are responsible for many paying very high prices for yarn. The dealers were making inquiries about what steps to take to expedite shipment. The delay is a serious matter for spinners as well as manufacturers.

How to expedite shipment from the South is one of the important subjects. Yarn dealers discuss the possibility of getting yarn by auto truck from different points in the South. But the great difficulty is to get a load for the trucks each way. When possible to ship yarn by express from the South, it costs about 3½ cents a pound, and some believe it could be brought up nearly as cheaply and fully as quickly by auto trucks, if loads could be secured both ways.

One spinner, whose yarn to fill a war contract has been held up at the shipping point by lack of cars, for nearly a month, telegraphed his selling agent that if the delay continued much longer, he would be obliged to suspend operations. If he cannot ship his yarn, he cannot run. One group of Southern mills, which was unable to make a shipment for more than a month, was able to load all the accumulated yarn last week.

Buyers of yarns are looking for lower prices. With a drop of 10 cents a pound in cotton, they cannot see why there should not be a corresponding reduction in yarn prices. The spinner does not look at it from the same angle. He is not willing to make any reduction, but on the contrary is looking for still higher prices. A report of a few thousand pounds, for quick delivery, at an advance over the previous price, is sufficient for him to say the market is advancing and put up his price, and the buyer, if in pressing need of the yarn, must pay.

Reports from mill sections are to the effect that more help is badly needed in order to fill orders accepted by the manufacturers. Practically all factories have booked business to or through September and some until the first of the coming year, but unless they get additional spindle operators and other help few, if any, will be able to complete orders.

Because of the fact that almost every seller of yarns' price list differs in some respects the yarn price list is being withheld this week.

**A. M. Law & Co.**  
SPARTANBURG, S. C.  
**BROKERS**  
Dealers in Mill Stocks and other  
Southern Securities.

## Southern Cotton Mill Stocks

	Bid	Asked
Abbeville Cotton Mills, S. C.	125	—
American Spinning Co., S. C.	179	—
Anderson C. Mills, S. C., com.	79	82
Anderson C. Mills, S. C., pfd.	90	100
Aragoa Mills, S. C.	110	130
Arcadia Mills, S. C.	135	—
Arkwright Mills, S. C.	175	170
Augusta Factory, Ga.	34	38
Avondale Mills, Alabama	195	250
Beaumont Mfg. Co., S. C.	185	200
Belton Cotton Mills, S. C.	140	145
Brandon Mills, S. C.	120	123
Brogan Mills, S. C.	90	100
Calhoun Mills, S. C., com.	102	105
Calhoun Mills, S. C., pfd.	100	—
Chesnee Mills, S. C.	150	152
Chiquola Mills, S. C., com.	136	—
Chiquola Mills, S. C., pfd.	85	—
Clifton Mfg. Co., S. C.	117	120
Clinton Cotton Mills, S. C.	125	—
Courtenay Mfg. Co., S. C.	135	—
Columbus Mfg. Co., Ga.	115	—
D. E. Converse Co., S. C.	112	—
Dallas Mfg. Co., Ala.	116	—
Darlington Mfg. Co., S. C.	—	80
Dacotah Mills, N. C.	200	—
Drayton Mills, S. C.	48	—
Dunbar Mills, S. C., com.	75	75
Dunbar Mills, S. C., pfd.	—	87
Eagle & Phenix Mills, Ga.	105	—
Easley Cotton Mills, S. C.	250	—
Enoree Mills, S. C.	70	—
Enterprise Mfg. Co., Ga.	—	62
Exposition Cotton Mills, Ga.	175	—
Gaffney Mfg. Co., S. C.	92	96
Gainesville C. Mills, Ga., com.	87	95
Glenwood Mills, S. C.	125	—
Glenn-Lowry Mfg. Co., S. C.	40	—
Glenn-Lowry Mfg. Co., pfd.	75	92
Gluck Mills, S. C.	—	101
Graniteville Mfg. Co., S. C.	90	—
Greenwood Cotton Mills, S. C.	175	—
Grendel Mills, S. C.	224	—
Hamrick Mills, S. C.	150	—
Hartsville Cot. Mills, S. C.	210	—
Henrietta Mills, N. C.	185	—
Inman Mills, S. C.	120	—
Inman Mills, S. C., pfd.	100	—
Jackson Mills, S. C.	150	—
Judson Mills, S. C.	122	125
King, John P. Mfg. Co., Ga.	87	95
Lancaster Cotton Mills, S. C.	150	—
Lancaster C. Mills, S. C., pfd.	—	—
Laurens Cotton Mills, S. C.	125	—
Limestone Cotton Mills, S. C.	150	—
Loray Mills, N. C., com.	30	—
Loray Mills, N. C., 1st pfd.	—	102
Marion Mfg. Co., N. C.	125	131
Marlboro Mills, S. C.	142	—
Mills Mfg. Co., S. C.	—	—
Molloy Mfg. Co., S. C.	140	150
Monarch Mills, S. C.	100	102
Newberry Cotton Mills, S. C.	195	—
Ninety-Six Mills, S. C.	—	—
Norris Cotton Mills, S. C.	125	—
Oconee Mills, S. C., com.	94	—
Oconee Mills, S. C., pfd.	98	—
Orr Cotton Mill, S. C.	118	—
Pacolet Mfg. Co., S. C.	125	—
Pacolet Mfg. Co., S. C., pfd.	100	—
Panola Mills, S. C.	85	—
Pelzer Mfg. Co., S. C.	145	—
Pickens Cotton Mills, S. C.	130	—
Piedmont Mfg. Co., S. C.	200	—
Poe, F. W. Mfg. Co., S. C.	135	—
Poinsett Mills, S. C.	104	106
Riverside Mills, com, par \$12.50	12	15
Riverside Mills, S. C., pfd.	115	—
Saxon Mills, S. C.	150	—
Sibley Mfg. Co., Ga.	—	60
Spartan Mills, S. C.	165	—
Toxaway Mills, par \$25.	10	—
Toxaway Mills, S. C., pf.	115	—
Tucapau Mills, S. C.	310	—
Union-Buttalo Mills, S. C.	120	123
1st pfd.	—	—
Union-Buttalo Mills, S. C.	—	31
2nd pfd.	—	—
Victor-Monaghan Mills, S. C.	93	95
pfd.	—	—
Victor Monaghan Company, S. C. common	—	87½
Victor Monaghan Company, S. C., pfd.	—	96
Ware Shoals Mfg. Co., S. C.	125	—
Warren Mfg. Co., S. C.	75	85
Warren Mfg. Co., S. C., pfd.	90	—
Watts Mills, S. C., com.	11	—
Watts Mills, S. C., pfd.	34	—
Whitney Mfg. Co., S. C.	125	—
Williamston Mills, S. C.	125	—
Woodruff Cot. Mills, S. C.	125	130
Woodruff Cot. Mills, S. C.	125	130
Woodside C. Mills, S. C., com	100	102
Woodside C. Mills, S. C., pfd	90	—
W. S. Gray Cotton Mills, S. C.	180	—

## Southern Cotton Yarn Co., Inc.

1 Madison Avenue, New York City

Selling Agents for

## SOUTHERN MILLS

Carded—Combed Yarns

4's TO 120's SINGLE AND PLY

D. H. Mauney, Pres. Phil S. Steel, Vice Pres. Jno. J. George, 2d Vice Pres.  
J. S. P. Carpenter, Treasurer D. A. Rudisill, Secretary

## Mauney-Steel Company

### COTTON YARNS

DIRECT FROM SPINNER TO CONSUMER

237 Chestnut Street

Philadelphia, Pa.

Southern Office: Cherryville, N. C.

MILLS DESIRING DIRECT REPRESENTATION AND HAVE THEIR PRODUCT SOLD UNDER THEIR OWN MILL NAME WILL PLEASE COMMUNICATE.

## OUR SPINNING RINGS—SINGLE OR DOUBLE FLANGE

Start Easiest, Run Smoothest, Wear Longest!

## PAWTUCKET SPINNING RING CO.

CENTRAL FALLS, R. I.

## St. Onge Adjustable Grid Bar

Removes 25% more dirt without loss of stock  
Plain bars or pin bars furnished

## BROWN-ST. ONGE COMPANY

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A. ST. ONGE, President

Charlotte, N. C.

## John P. Marston

Gum Tragacoll

Kerston Softener

Bleaching Assistant

Bleacher's Blue

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BOSTON

## SPOOLS

We can make delivery on any type spool, any size, from twenty to thirty days. Also can make prompt delivery on underclearers, and skewers, all sizes.

## Greenville Spool and Manufacturing Co.,

Greenville, S. C.

## SIZINGS, OILS, FINISHINGS, SOFTENINGS, FILLING AND WEIGHTING of YARNS, FABRICS and RAW STOCK. Also HOSIERY FINISHING and BLEACHINGS



TRADE MARK

Sizing, Tallow, Soluble Grease, Soluble Oils, Gums, Glues, Gum Arabol, Lancashire Size, Waxes, Finishing Pastes, Soaps, Glycerine, Ready-made Heavy Size, Sago and Tapioca Flours, Dextrines, China Clay, Soluble Blue, Bone, Grease, Magnesium.

SPECIAL COMPOUNDS FOR WARPS, WHERE STOP MOTIONS ARE USED.

WEIGHTING COMPOUNDS FOR COLORED AND WHITE WARPS. FINISHING COMPOUNDS FOR ALL CLASSES OF FABRICS.

The Arabol best grades of cotton warp sizing compounds make the "finest weaving and will hold the fly."

These compounds are based on the best practical experience and the best materials used in their manufacture.

### THE ARABOL MANUFACTURING COMPANY

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SOUTHERN AGENT: CAMERON MacRAE, Concord, N. C.

R. P. GIBSON, South Carolina Agent, Greenville, S. C.



Factories: Brooklyn, N. Y.

GUY L. MELCHOR, Ga., Ala. and Tenn. Agent, Atlanta, Ga.

### Puts Coal on Priority List.

The priorities committee of the war industries board, at Washington, notified Secretary W. D. Adams, of the National Council of American Cotton Manufacturers, of its favorable action on the petition recently presented and several times subsequently urged, granting recognition to cotton mills on government orders for preference on its list of essential industries for the transportation of fuel, thus giving to the textile industry recognition granted under date of April 6 to a selected class of enterprises engaged on other war work, such as the munition manufacturers, shipyards, ordnance, etc.

This recognition, however, stated Mr. Adams, is only temporary and will depend on the nature and extent of the demands of the war situation and the manner in which cotton manufacturers co-operate to make it effective. It will be in force until the priorities committee carefully goes into the situation after which time it will determine how general it is to be in its application.

This recognition, as the term implies, is simply giving to mills on government work assurance that they will be kept supplied with fuel so that if they are about to run out or are unable to secure shipments, the government will step in and see that they are furnished.

Mr. Adams indicated that the priorities committee had several times indicated that it would not issue a blanket preference for the entire industry but that individual mills on government work would have to make their own applications for priority certificates. This supplemental order reflects a departure from this principle but it is to be taken as such only to the extent of the supplemental announcement, pending more complete investigation.

The American Cotton Manufacturers' Association, through the national council in Washington, has been working on this vital problem ever since April 6, when the first preference list was announced, which did not carry any reference whatever to the cotton industry. Effort will now be directed to see that due consideration is given the industry on this as well as on other problems arising.

If you buy War-Savings Stamps, you also help your country.

### Mill Child Has Narrow Escape.

Passengers Sunday afternoon, on Southbound Southern passenger train No. 45 tell of the miraculous escape from death of a five-year-old boy who stretched himself on the ties of a high trestle known as the South Fork trestle at Mayvorth, N. C., as the passenger train passed over him.

Forty-five approached the trestle late Sunday afternoon at a slow rate of speed. The engineer saw the small boy, whose name was not learned, on the trestle. He applied the emergency brake and made every effort to stop his train, bringing the train to a standstill on the trestle after the engine and two coaches had passed over the boy. Trainmen hurrying to investigate found the little boy had with remarkable presence of mind laid down on cross tie outside the rail hanging his head and feet downward. He was unhurt. The child lives at the mill village at Mayvorth.

If you buy War-Savings Stamps, you also help your country.

**Bryan, Tex.**—The Bryan Commercial Club has undertaken to finance a cotton mill here which would have Brazos county as its field. The plan on which it is proposed to finance this mill is a novel one and originated with Ed Hall, president of the First State Bank and Trust Company. Mr. Hall proposed that a stock company be formed with shares of \$50 par value each, the capitalization to be \$200,000 or \$300,000. His plan is for every purchaser of Liberty Bonds in Brazos county to become a stockholder, the organization of the company being such that each share of stock must be exchanged for a Liberty Bond. It is believed that there will be no difficulty in disposing of all the stock on these conditions. The plan has met with instant favor throughout the county and preliminaries looking to the organization of the company have been started.

**Galveston, Tex.**—Cyrus W. Scott Company, of Houston, has opened an overall factory here, the output of which is to be 675 garments daily. The employees number 75. The officers of the company are: Cyrus W. Scott, president; D. E. Ouzts vice-president and treasurer; J. K. Harris, secretary, all of Houston.

"Thrive by Thrift, Buy War Savings Stamps."

### Broken or Worn Card Room Spindles Repaired and Made Like New

Spindles re-topped or re-versed—New part welded on Electrically. All bearings made full size. Spindles Guaranteed not to break at weld.



### SOUTHERN SPINDLE & FLYER CO., Inc. Charlotte, N. C.

Manufacturers, Overhauled and Repairers of

COTTON MILL MACHINERY

W. H. Monty, Pres. and Treas.

W. H. Hutchins, V.-Pres and Sect'y

LOOM-LUBRIK TWISTER RING GREASE NON-FLUID OIL  
MICO GREASE SIZE

### MASURY-YOUNG COMPANY

60 Years in Business

BOSTON, MASS.

Disinfectants, Apron Oil, Greases, etc.

### Chemicals and Oils For Sizing Finishing and Dyeing

### The New Brunswick Chemical Co.

NEW BRUNSWICK, N. J.

GUARANTEED QUALITY—DEMONSTRATIONS MADE

Southern Agent, MAX EINSTEIN, P. O. Box 927, Charlotte, N. C.

### Mason

Brushes

Last Longer

### Mason Brush Works

Worcester, Mass.



### KEYSTONE FIBRE COMPANY

YORKLYN, DELAWARE

Seamless Roving Cans, Steel Clad Trucks

Doffing Cars, Mill Boxes

### QUALITY FIRST

SOUTHERN REPRESENTATIVES

WILSON COMPANY,

Greenville, S. C.

# Want Department

## Want Advertisements.

If you are needing men for any position or have second hand machinery, etc., to sell the want columns of the Southern Textile Bulletin affords the best medium for advertising the fact.

Advertisements placed with us reach all the mills and show results.

### For Sale.

125 reeds, 29% dents per inch, 44 inches over all, 4 1/2 inches outside. Reeds are all new and will be sold cheap. Banna Manufacturing Company, Goldville, S. C.

### Wanted.

Three card grinders for day work and one card foreman to look after 87 cards, five nights per week. Men not subject to draft preferred. State experience and salary you would expect in first letter. Apply J. V. McCombs, Beaver Mills, North North Adams, Mass.

### Boiler for Sale.

For sale—One new 78x20 return tubular boiler complete. Boiler has never been installed and prompt shipment can be made direct from factory. For details address Manchester Cotton Mills, Manchester, Ga.

### Wanted.

Wanted—Two or three good baseball players that can work in cotton mill. We have nearly enough good players for the team but would like to have a few more. Can use them in most any position they can play well. Our work runs well and our people are making good wages in all departments now. We have weavers making \$20.00 to \$23.00 a week; doffers, spinners and spoolers, \$14.00 to \$16.00; mule spinners, \$16.00 to \$23.00, etc. Can use a few more weavers, spinners and spoolers, 2 or 3 doffers; also 2 or 3 mule spinners. Write or call on O. H. Farr, Supt. Manetta Mills, Lando, S. C.; or L. A. Hinson, Manager Lando Baseball Team.

## PATENTS

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### HERE ARE THE FACTS

YOU have a machine that you do not want—or one that you would sell at a price, to buy one more efficient.

SOME CONCERN wants that machine to increase or match up its equipment.

WE locate that concern nine times out of ten.

BUYERS have the use of our service absolutely FREE OF CHARGE. Tell us what you want.—We very likely have it listed.

### OUR COMMISSION IS 10%

**Bullock Machinery Exchange**  
77 Washington St., Providence, R. I.

### For Sale.

One 8x4 Saco-Lowell Roving Frame, 144 spindles. Can be seen running the next ten days. In good condition, but a misfit in our plant. Linn Mills Company, Landis, N. C.

### "Coal Week," From June 3 to 8.

"Coal week," the period from June 3 to 8, has been selected by United States Fuel Administrator Garfield for an intensive and specific drive on the early ordering of coal. The fuel organizations of the various States, the county chairmen of fuel committees throughout the nation, coal dealers, chambers of commerce, mine operators, and others are all called upon to do their utmost to make this week's drive a big success.

From some States has come the objection that the trouble about the coal supply does not come from the consumers, industrial or domestic, but from the dealers, who complain that they can not get sufficient coal to deliver. In spite of this, the Fuel Administration is very anxious that the early ordering campaign be vigorously pushed.

By accumulating a large volume of orders in the hands of the dealers it is expected that there will be demonstrated to every agency concerned in the distribution of coal the universality and urgency of the demand and this, in turn, will give rise to a steady and increasing pressure for rapid and equitable distribution. This is particularly true as to the railroads and other transportation agencies. Every unfilled order for coal will at once become an active and pressing argument for increased distribution efficiency. By keeping coal orders constantly accumulating, the resulting pressure, it is believed, will have the effect of keeping production at the highest

possible point during the summer months.

It is also felt that with the bulk of the year's supply of coal ordered well in advance, the various distribution agencies of the Government will be in a position equitably and properly to adjust the demands as between different communities. It will be possible accurately to gauge the increased demand and properly to divide the available supply.

### Long-Stapled Cotton.

Spinners employing long-stapled cotton will be extremely interested in the possible development of India as a country producing fiber of this character. Recent investigations have established the fact that long-stapled cotton can be grown over a wide area in that country, and in the Punjab alone some 270,000 acres are growing a variety of American cotton known as F4. From this area alone some 100,000 to 120,000 bales will be produced.

It is stated to be essential that a good price is secured for this long-stapled cotton if the movement is to grow and an increased acreage put under cultivation. Complaints have existed for some time past in regard to adulteration and damping, and the investigations referred to have considered the question with a view of ensuring delivery of the cotton in a proper condition.

There is no likelihood of the increased acreage affecting the food crops appreciably. The one point emphasized by the Committee making the investigation is that a sufficiently high price should be secured for long-stapled cotton, in order to convince the planter that returns comparable to those secured from other crops will accrue to him.

Another interesting announcement is in relation to Egyptian cotton. An absolute necessity to conserve the Egyptian cotton crop has arisen, and steps are being taken to acquire it from August 1st, 1918. A Cotton Control Commission has been appointed. This commission will be prepared from the date given to purchase both next season's crop and the residue of the present crop

at Alexandria at a price based on 42 dollars per kantar for fully good fair Sakellaridis. This is quite a new variety of long-stapled cotton, which has become important during recent years. Within the limits, and subject to the conditions, of the rations officially fixed from time to time for each country of destination, the commission will be prepared to sell the cotton purchased at a price based until further notice on \$48 per kantar f. o. b. Alexandria for F. G. G. Sakellaridis.—Textile Recorder of Manchester, Eng.

### British Spinners' Profits.

The English cotton manufacturers have only been able to secure a fraction of their usual takings from this year's cotton crop, but a compilation by the London Economist indicates that their profits on what cotton they have worked up have been ample. Based on results of 19 firms since January 1, last, these indicate that the average earnings this year on share capital have been at the rate of 45 per cent per annum, and on total capitalization about 32 per cent per annum. Meanwhile their employees are agitating for higher wages.

### A Hobo From the Hub.

"What on earth did that fellow mean when he said he was a 'peregrinating pedestrian, castigating his itinerary from the classic Athens of America'?"

"He meant he was a tramp beating his way from Boston."—Ex.

### Francis Cotton Mills.

#### Biscoe, N. C.

J. C. Reece.....Superintendent  
J. F. Luck.....Carder  
E. H. Howell.....Spinner  
Chas. McAskell.....Twisting & Wind'g  
J. M. Belch.....Master Mechanic  
C. L. Bruton.....Night Superintendent  
Spencer Howell.....Night Carder  
W. H. Rollins.....Spinner  
John McQueen.....Twister

"Thrive by Thrift, Buy War Saving Stamps."

The Mark of  
Sterling Value  
in Electrical  
Work.



Huntington &  
Guerry  
GREENVILLE  
South Carolina

CLEAN WITH FELTON'S  
FELTON'S BRUSHES ARE NOTED FOR LONG WEAR



D. D. FELTON BRUSH CO.

S. A. FELTON & SON CO.,  
Manchester, N. H.

ATLANTA, GA.

## Employment Bureau

The fee for joining our employment bureau for three months is \$2.00 which will also cover the cost of carrying a small advertisement for one month.

If the applicant is a subscriber to the Southern Textile Bulletin and his subscription is paid up to the date of his joining the employment bureau the above fee is only \$1.00.

During the three months' membership we send the applicant notices of all vacancies in the position which he desires.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern textile industry.

WANT position as carder or carder and spinner or superintendent of small mill. Age 33. Am at present overseer of spinning. Am giving satisfaction but would prefer to change. Address No. 2125.

WANT position as overseer of weaving. Have had special experience in Eastern mills on fancy fabrics and am a first class designer. Best of references. Address No. 2126.

PRACTICAL cotton mill man conversant with the determination of production costs as well as manufacturing details, would like position of responsibility as Executive's Assistant. Personal interview desired. Address No. 2127.

WANT position as superintendent or manager. Am a young man 29 years of age. Textile school graduate, 10 years' experience in all departments of mill and office. High class references. Address No. 2128.

WANT position as overseer of carding. Have had 12 years' experience in card room and can furnish high class references. Address No. 2129.

WANT position as superintendent or overseer of large card room. Am now employed and giving satisfaction but prefer to change. Good references. Address No. 2130.

WANT position as superintendent or overseer of weaving. Have held both positions and given entire satisfaction. Can give former employers as reference. Address No. 2131.

WANT position as superintendent of yarn mill or plain weaving mill. Can furnish A-1 references from past and present employers. Have held present position as spinner and superintendent for six years. No cause for changing except desire larger salary. Address No. 2132.

WANT position as superintendent. Have held position as superintendent in one of the largest mills in South Carolina and have had

splendid experience. References if desired. Address No. 2133.

WANT position as superintendent. Have had long practical experience with special experience on fine yarns. Can furnish high class references. Address No. 2134.

WANT position as superintendent. Am familiar with the manufacture of ginghams and other kinds of cloth and yarns, including hosiery yarns. Have always made good and can furnish high class references. Address No. 2135.

WANT position as superintendent or overseer of weaving. Have had long experience, in both positions with special experience on weaving, slashing and finishing. Good references. Address No. 2136.

WANT position as superintendent or traveling salesman. Have had long experience as superintendent and also considerable experience on the road. Can furnish high class references. Address No. 2137.

WANT position as overseer of weaving. Have had 5 years experience as overseer and practical experience as loom fixer on Draper and plain looms. Age 35, married. Best of references as to character and ability. Address No. 2138.

WANT position as overseer of carding or carding and spinning. Have 26 years experience in carding and spinning and five years as overseer. Experienced on combed yarns. Can furnish high class references. Address No. 2139.

WANT position as superintendent. Am now employed as superintendent of small mill on coarse goods, but have had experience in large mills and have ability to operate large plants successfully. Address No. 2140.

WANT position as overseer of carding and spinning or superintendent of small mill. Have had long practical experience in all positions and can furnish high class references. Address No. 2143.

WANT position as overseer of carding. Now employed, but wish to change to larger job. Can give good references from former employers. Have had experience on both white and colored work and long experience on grinding and setting. Age 34, married and have family. Address No. 2144.

WANT position as superintendent. Have had long practical experience, with special experience on fine combed yarns. Can furnish high class references. Address No. 2141.

WANT position as overseer of weaving. Have been on present job two years and have given satisfaction. Experienced on fancies and huck towels. Address No. 2145.

WANT position as master mechanic or engineer. Have had 25 years'

experience. Have one doffer, one spooler or warper hand. Can give good references. Address No. 2146.

WANT position as superintendent. Am an Eastern man with special experience on fine combed work. Am a good manager of help. Address No. 2147.

WANT position as superintendent or overseer of carding. Have had long experience in both positions and can furnish high class references from former employers. Address No. 2150.

WANT position as master mechanic; 13 years' experience in and around cotton mill, steam and electric power plants. Ten years as chief engineer and master mechanic. Fine references. Address No. 2153.

WANT position as superintendent or as carder and spinner. Long experience and high class references. Now employed but prefer to change. Address 2154.

WANT position as master mechanic, chief engineer or head electrician of large Southern textile, power or manufacturing industry. Eighteen years practical experience, also technical training. Employed now as master mechanic and chief engineer of large mill. Age 41, moral habits, have family, A-1 references. Address No. 2155.

WANTED by mill superintendent, position in either yarn or weaving mill. Age 40. Splendid executive, life-time experience in the mill business, ten years as superintendent. Literary and textile graduate. Now employed. Address No. 2156.

WANT position as overseer of carding at not less than \$3.50 per day. Am now employed and can furnish satisfactory references. Address No. 2157.

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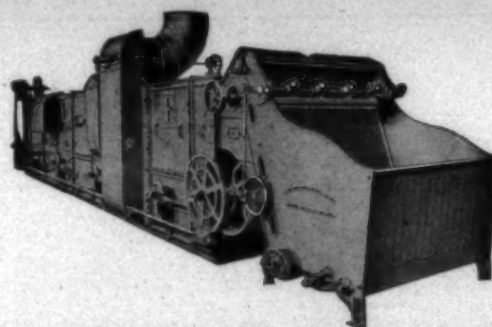
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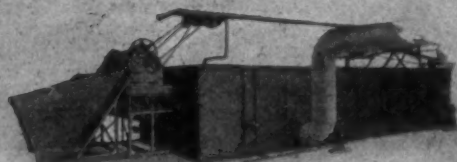
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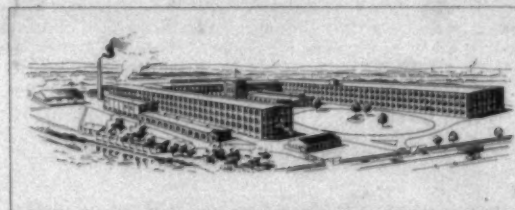
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